February 28, 2013

Mr. Ismael Lopez

Department of Beaches & Harbors

Design Control Board

13483 Fiji Way Trailer #3

Marina del Rey, CA 90292

Attention: Planning

Re: Oxford Retention Basin Multi-Use Enhancement Project

Dear Mr. Lopez:

We are pleased to submit the referenced project for final design approval. The following is a summary of our response to comments received during our last meeting with the Design Control Board (DCB) in September, 2012. The Project Design Concept is also enclosed to provide a thorough Project Scope of Work.

We look forward to presenting this project for your consideration of the final design approval by your Board at the March, 2013 Design Control Board meeting.

Sincerely,

Joshua Svensson, PE

Los Angeles County Department of Public Works

OXFORD RETENTION BASIN

#	Comment	Meeting	Source	Response
1	What do you mean by “stabilized decomposed granite”? Will it be sprayed with oil? Will the stabilizer contaminate the water?	DCB-September 19,2012	DCB's Chair	The DG will be mixed with the stabilizer, which will not have any negative impacts to water quality.
2	I’m very disappointed in the Washington Ave plan area, because it looks as though there were opportunities there to let the path and the fence be disengaged from the sidewalk, and I’d like to see that exploited… The experience of walking down the path should be something different than walking on the sidewalk.	DCB-September 19,2012	DCB's Chair	Unfortunately, realignment of the walking path is likely not feasible as we are have already maximized encroachment onto the site.
3	The name of the project sounds too much like “flood control”	DCB-September 19,2012	DCB's Chair	We agree, and are looking into this.
4	Who will be the “architectural curator”? Is there an individual who will make sure the elements are all cohesive?	DCB-September 19,2012	DCB's Chair	This role will be fulfilled by our landscape architect.
5	I hope that the construction budget reflects the prioritization of the work?	DCB-September 19,2012	DCB's Chair	It does. The recreational, habitat, and aesthetic enhancements compose a significant portion of the total budget.
6	I and many members of the community are concerned about odors from basin.	DCB-September 19,2012	Public Member	We believe sewer gas is/was the primary source of odors, we have resolved many of the issues, and we are actively investigating all reports.
7	Will the contaminated water from the Marina cause issues with the habitat in Oxford?	DCB-September 19,2012	Public Member	We don’t believe there will be significant negative effects due to water from the Marina, and the project may in fact improve Marina water quality
8	Can you include bathrooms in the project?	DCB-September 19,2012	Public Member	(DBH Answered): there are several public bathrooms in the vicinity; we will plan to include maps to bathrooms in the site signage.
9	Are there records of oil wells in the area?	DCB-September 19,2012	Public Member	Not in the area of this site.
10	Will this require partial closure of Admiralty or Washington?	DCB-September 19,2012	Public Member	Yes, it will likely require partial closure of Admiralty, but the traffic control plans have not been finalized. We will work to minimize this disruption.

OXFORD RETENTION BASIN MULTIUSE ENHANCEMENT PROJECT

PROJECT DESIGN CONCEPT

COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

March 14, 2012

Approved _____ 3.16.2012
Patrick V. DeChellis

Approved _____
Diego Cadena

March 14, 2012

TO: Patrick V. DeChellis
Diego Cadena

FROM: Sree Kumar
Design Division

Gary Hildebrand
Watershed Management Division

PROJECT DESIGN CONCEPT
OXFORD RETENTION BASIN MULTIUSE ENHANCEMENT PROJECT
PROJECT ID FCC0001176, PCA JX0039

RECOMMENDATIONS

1. Approve the Project Design Concept (PDC) for the Oxford Retention Basin Multiuse Enhancement Project (Project) as described herein.

2. Approve a Project budget of $10,190,000 and request Watershed Management Division (WMD) to arrange for necessary financing over Fiscal Years (FY) 2012-15 as described in this PDC.

BACKGROUND

The Project is located at Oxford Retention Basin (Oxford Basin), a flood control facility operated by the Los Angeles County Flood Control District (LACFCD), one block north of Marina Del Rey Harbor Basin E (Basin E) in the unincorporated community of Marina Del Rey (Thomas Guide 671-J6).

The Project will mitigate localized flooding, address water quality deficiencies, enhance native habitat, improve the site's aesthetics, and provide passive recreation features.

WMD completed a Project Concept Report for the Project dated December 31, 2008. Design Division (DES) has studied and evaluated the alternatives for the Project and has refined the project scope and schedule.

PROJECT DESCRIPTION

The Project's scope of work is as follows:

LACFCD FUNDED WORK:

- Excavation of approximately 2,700 cubic yards (CY) of accumulated sediment along the bottom of Oxford Basin to restore basin capacity. The sediment will be disposed at a Class III landfill.

- Construction of a parapet wall along the northwestern and southern boundaries of Oxford Basin. The reinforced concrete wall will be approximately 1,050 linear feet long and a maximum of 2 feet in height. The wall will provide enhanced protection from flooding along Washington Avenue.

- Construction of a berm between the two existing tide gates and reprogramming the opening cycle of the existing tide gates to improve water circulation in Oxford Basin.

- Mitigation of localized flooding by modifying the existing 7-foot-wide catch basin on the south side of Oxford Avenue at the intersection of Oxford Avenue and Olive Street. The catch basin will be modified and a Tideflex "Check-mate" flap-gate will be installed at the connection to Project 5243. Local drainage will be further improved by the removal and replacement of existing Tideflex G-37 valves in four catch basins on Oxford Avenue and Olive Street with more efficient Tideflex "Check-mate" flap-gates.

- Installation of trash BMPs at the outlets of Storm Drain Project Nos. 5243 and 3872 to remove gross solids in urban and storm water runoff.

- Construction of a maintenance vehicle access ramp from Admiralty Way adjacent to the tide gate control house.

- Installation of a steel-grated landing above the two tide gate inlet structures in the basin to provide safer access for trash rack maintenance.

- Construction of a permanent boat ramp near the outlet of Project No. 3872 to allow Flood Maintenance Division (FMD) and the Department of Beaches and Harbors (DBH) access to Oxford Basin for routine maintenance, trash removal, and water quality monitoring.

COUNTY FUNDED WORK:

- Construction of an 8-foot-wide walking trail with wildlife-friendly lighting around the perimeter of Oxford Basin. The sidewalk along Admiralty Way will be replaced with landscaped parkway and integrated with the new walking trail.

- Reconstruct approximately 400 linear feet of slope along Admiralty Way near Project 3872 with geogrid or an approved equal to stabilize the underlying soils.

- Installation of approximately 3,550 linear feet of 4-foot-high ornamental steel fence around the perimeter of Oxford Basin.

- Removal of existing vegetation and approximately 6,200 CY of contaminated soils along the perimeter of Oxford Basin (3,200 CY and 3,000 CY to be disposed at Class I and Class III landfills, respectively) and replacement with clean imported fill and attractive, drought-tolerant native plants to provide aesthetic enhancement, which will also serve to enhance the habitat surrounding Oxford Basin.

- Installation of an irrigation system to establish the new native plants.

- Construction of six observation areas with park benches overlooking Oxford Basin: two along Washington Boulevard and four along Admiralty Way.

- Installation of interpretative signage at the observation decks and along the walking trail to educate users about stormwater pollution prevention measures, native plants, and area wildlife.

The project scope is also shown on Attachment A, artistic rendering of completed project, and Attachment B, Preliminary Design Plans.

DISCUSSION

The Oxford Basin site occupies an area of approximately 10.7 acres and currently has a large retention pond that is inundated year-round with urban and stormwater runoff, high groundwater, and tidal inflows from Basin E. A 10-foot-high chainlink fence encloses the facility, and there are a variety of trees and shrubs along the basin's steep banks. The facility lacks recreational amenities and has little aesthetic appeal. Oxford Basin is primarily a flood control facility, detaining urban and stormwater runoff from the surrounding area (approximately 700 acres) of the Marina Del Rey Watershed. There are automatically controlled tide gates, which allow Oxford Basin to drain to the Marina when the water surface elevation in the Marina is lower than that in Oxford Basin. On occasion,

water in Basin E is allowed to enter the Oxford Basin through the gates for water recirculation purposes.

The Los Angeles Regional Water Quality Control Board (RWQCB) has identified Marina Beach ("Mother's Beach") and the Marina Del Rey Harbor Back Basins (Basins D, E, and F) as impaired water bodies. The jurisdictions within Oxford Basin's tributary drainage area are the Cities of Culver City and Los Angeles, the County of Los Angeles (County), and California Department of Transportation. Current Bacteria and Toxics Total Maximum Daily Load (TMDL) regulations call for an improvement to water quality in the Marina Del Rey Harbor back basins.

Basin Hydraulic Analysis

Two LACFCD storm drains discharge into Oxford Basin. Project No. 5243, constructed in 1969, was designed for the 10-year flow of 235 cubic feet per second (CFS), and Project No. 3872, constructed in 1972, was designed for the 10-year storm flows of 235 CFS. A new hydrology and storm routing analysis for Oxford Basin for a 50-year storm was conducted in August 2010, (Attachment D). The 50-year storm flow collected at Oxford Basin using the Watershed Modeling System and the Modified Rational Method was found to be 750 CFS. Based on initial water surface of 1.5 feet MSL in Oxford Basin and 2.7 feet MSL high tide water surface in the marina, routing the 50-year capital storm through the basin indicated that the maximum water surface in Oxford Basin would reach 4.9 feet MSL. While at this level, the discharge to the marina through the existing tide gates of 6-foot-by-6-foot reinforced concrete box and 81-inch diameter reinforced concrete pipe will be limited to 561 CFS. At an elevation of 4.9 feet MSL, the basin will have adequate storage capacity for 13.75 acre-feet. Under the 50-year capital storm event, the southerly and westerly perimeters of Oxford Basin will require a new parapet wall with the top-of-wall elevation at 8.0 feet MSL. This wall will provide the necessary freeboard to prevent flooding to the adjacent Parcel "OT" and along Washington Boulevard.

According to the hydraulic analysis conducted in 2010, when Oxford Basin reaches its maximum of 4.9 feet MSL, the low-lying subarea at the intersection of Oxford Avenue and Olive Street does not adequately drain into the Project 5243 Line "C" storm drain. This could lead to possible flooding above the property line within this reach for approximately 60 minutes before the basin water level recedes back to 3.8 feet MSL. In 2003, to address this flood hazard, check valves (Tideflex G-37) were installed on the connector pipes within the surrounding catch basins. However, one 7-foot-wide catch basin along Oxford Avenue could not be retrofitted with a check valve because it has a direct opening to the existing 6-foot-wide by 4-foot-high reinforced concrete box storm drain (Project 5243 Line "C").

The Project involves modification of the existing 7-foot-wide catch basin by separating the catch basin from Project No. 5243 and installing a check valve to isolate the potential backflow from the drain (See Attachment B, Sheet 3). Prior to forecasted storms, the basin is drained down to the lowest elevation possible, typically between -3.0 and -1.0 feet MSL. Any adverse affect on the lateral storm drain such as storm backflow along Oxford Avenue will be reduced. Therefore, based on the hydrology and reservoir routing analysis, the proposed improvements will alleviate flooding at the intersection of Olive Street and Oxford Avenue and no additional improvements are required on Oxford Avenue.

Water Circulation Operation

The Project will improve the water quality in Oxford Basin by increasing circulation and dissolved oxygen levels of the water within Oxford Basin. This will be accomplished by constructing a berm to direct flows around the basin and by revising the operation program of the tide gates to vary the water elevation between -2.0 and 1.5 feet MSL. This will facilitate better exchange of water between the Marina and the basin during high and low tides. Because the circulation will be powered by tidal action, the berm will have significantly lower maintenance requirements accomplishing the same goal as the mechanical circulation device included in the Project Concept Report.

The proposed berm structure will extend into the middle of Oxford Basin, separating incoming and outgoing flows and increasing circulation of water within Oxford Basin. The berm's function will be enhanced by strategic operation of the tide gates. For example, the west tide gate will be programmed to open during rising tides, sending water from Basin E into Oxford Basin, traveling upstream of the dividing berm. The east tide gate will be programmed to open during falling tides, forcing the water to circulate around the end of the berm and out of Oxford Basin into Basin E.

The top of the berm will be at 2.0 feet MSL and will be 2 feet wide. The berm will be planted with pockets of vegetation at an intermediate water elevation. The vegetation on the berm will potentially help to capture some of the pollutants in the water. See Attachment A for artistic renderings of the completed project.

Water Quality Enhancement

The proposed berm, modifications to the tide gate program, planting along the berm, landscaping on the embankment, and removal of deposited sediment will enhance circulation, increase oxygen levels in the water, remove pollutants, and improve the quality of water discharging from Oxford Basin.

To keep track of the improvements to the water quality, WMD will utilize data collected from the existing water quality monitoring system at station MdRH-5 in front of the tide gates, as well as the toxic monitoring station MdRH-B-2 in the middle of Basin E. Data collected from both stations will be used to evaluate the effectiveness of this Project.

Sediment Excavation

Removal of the contaminated sediment from Oxford Basin will ensure that this sediment is not contributing to concentrations of toxics, metals, or other pollutants of concern in the water within Oxford Basin prior to discharge to Basin E. A sediment and geotechnical study completed at Oxford Basin by URS Corporation in December 2011 identified evidence of elevated levels of hydrocarbons in sediment samples from the bottom of the basin. The report also identified the basin's perimeter to have levels of heavy metals above the thresholds for federal Resource Conservation and Recovery Act (RCRA) and California regulated (non-RCRA) hazardous material. Sediment removed from within the basin between elevation -3.0 MSL and elevation 1.0 MSL (approximately 2,700 CY) will be disposed at a Class III landfill and excavation material for retaining wall, access ramps and landscaping (approximately 300 CY) will need to be disposed at a Class I landfill. Staging, drying, and hauling of the excavated materials in the basin will be done as part of the contractor's soil management plan.

The landscaping work will require the excavation of approximately 6,200 CY of contaminated soil. Approximately 3,200 CY will be directed to a Class I landfill and 3,000 CY to a Class III landfill. This soil exceeds recommended agronomic thresholds, cannot be amended, and will need to be replaced for any type of planting to flourish. Biological assessments of the site have also recommended that approximately 150 non-native mature trees be removed to restore native habitat.

Based on the results and previous removal of material in the project area, the estimated total cost to remove the clean and hazardous soils is approximately $1.4 million, $300,000 for LACFCD funded work and $1.1 million for County funded work.

Recreational and Aesthetic Improvements

The community neighboring Oxford Basin has expressed a strong desire to add recreational and aesthetically pleasing amenities to the area surrounding the basin.

Replacement of the sidewalk along Admiralty Way with a landscaped parkway/bio-swale and construction of an 8-foot-wide decomposed granite walking trail around Oxford Basin will significantly improve the recreational appeal of Oxford Basin. In addition, replacement

of existing vegetation with attractive, drought-tolerant native plants, installation of a 4-foot tall ornamental steel fence, construction of observation areas, interpretive signage, and improved wildlife friendly lighting will provide significant improvements to the site's aesthetics. See Attachment A for artistic renderings of the completed project.

The Oceana Del Rey retirement facility, a proposed multi-story housing development on Parcel OT (on the west side of Oxford Basin), is currently scheduled to begin construction in 2012. As part of their lease requirements, the developer has agreed to construct a walking trail and install landscaping in the adjacent space between the new complex and Oxford Basin. The trail and landscaping will be built to the same standard plans and architectural specifications as this Project. See Attachment C for plans of this proposed trail.

The Admiralty Way Settlement Repair Project is scheduled to begin in late 2012 and proposes a new temporary asphalt sidewalk, fencing, and grading into Oxford Basin. This sidewalk will be removed and replaced with a walking path as part of the Oxford Retention Basin Multiuse Enhancement Project.

RIGHT OF WAY AND MAINTENANCE

A construction easement from the City of Los Angeles will be required for the catch basin modification on Oxford Avenue and for construction of the walking trail along Washington Boulevard. No permanent easement or right-of-way acquisitions are required.

The County owns the Oxford Basin site, and the LACFCD, by agreement with the County, has unrestricted access to the site to maintain and operate its facilities thereon. This agreement stipulates that any construction projects initiated by the LACFCD on the Oxford Basin site must first be reviewed and approved by the DBH.

The maintenance responsibility of the non-flood control facilities on the Oxford Basin site, including the walking trail, landscaping, lighting, and other enhancements, has not been finalized. Watershed Management Division will facilitate the establishment of a Memorandum of Understanding (MOU) to be agreed upon by the County DBH, LACFCD, and/or the Department of Public Works for the maintenance of these improvements.

ENVIRONMENTAL DOCUMENT AND PERMIT REQUIREMENTS

Programs Development Division (PDD) has secured the services of Chambers Group as environmental consultant to prepare all required environmental documents. The consultant has determined the Project will require at least a Mitigated Negative Declaration, and that it may be necessary to prepare an Environmental Impact Report

depending comments from the public review period from the constituents, regulatory agencies, and the general public. The Initial study will include Biological Resources, Cultural Resources, Hazards, and Hazardous Materials.

The Project is located within the coastal zone and must comply with the County-certified Local Coastal Program (LCP) for Marina Del Rey pursuant to Section 30519.5 of the Coastal Act. In addition, a Clean Water Act Permit for Section 401 from RWQCB and a Nationwide Permit from the United States Army Corps of Engineers will be required. The California Department of Fish and Game will require compliance with Section 1602 for any modifications made to Oxford Basin.

PROJECT CONSTRUCTABILITY AND ISSUES

High groundwater is expected during high tide. Dewatering will be required during excavation within the basin and will be subject to RWQCB regulations. Noise levels may need to be addressed due to construction activities that impact the bird nesting season.

All excavation and sediment disposal included in this Project will be required to comply with hazardous waste discharge requirements and the South Coast Air Quality Management District Rule 1166, Contaminated Soil Mitigation Plan. The trucking of material will be constant during grading and excavation, a truck route plan will need to be approved by the City of Los Angeles.

COMMUNITY OUTREACH

Public Works has been in contact with several stakeholders during the planning of this project. A chronological history of meetings with stakeholders can be seen on Attachment E.

TRAFFIC

A traffic detour plan will be required in order to allow the ingress and egress of heavy equipment to perform excavation operations at Oxford Basin. Detour and/or traffic control measures will also be required during perimeter construction activities.

UTILITIES

No utility relocations are anticipated for this Project.

OXFORD RETENTION BASIN MULTIUSE ENHANCEMENT PROJECT

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

Watershed Management Division

March 20, 2013

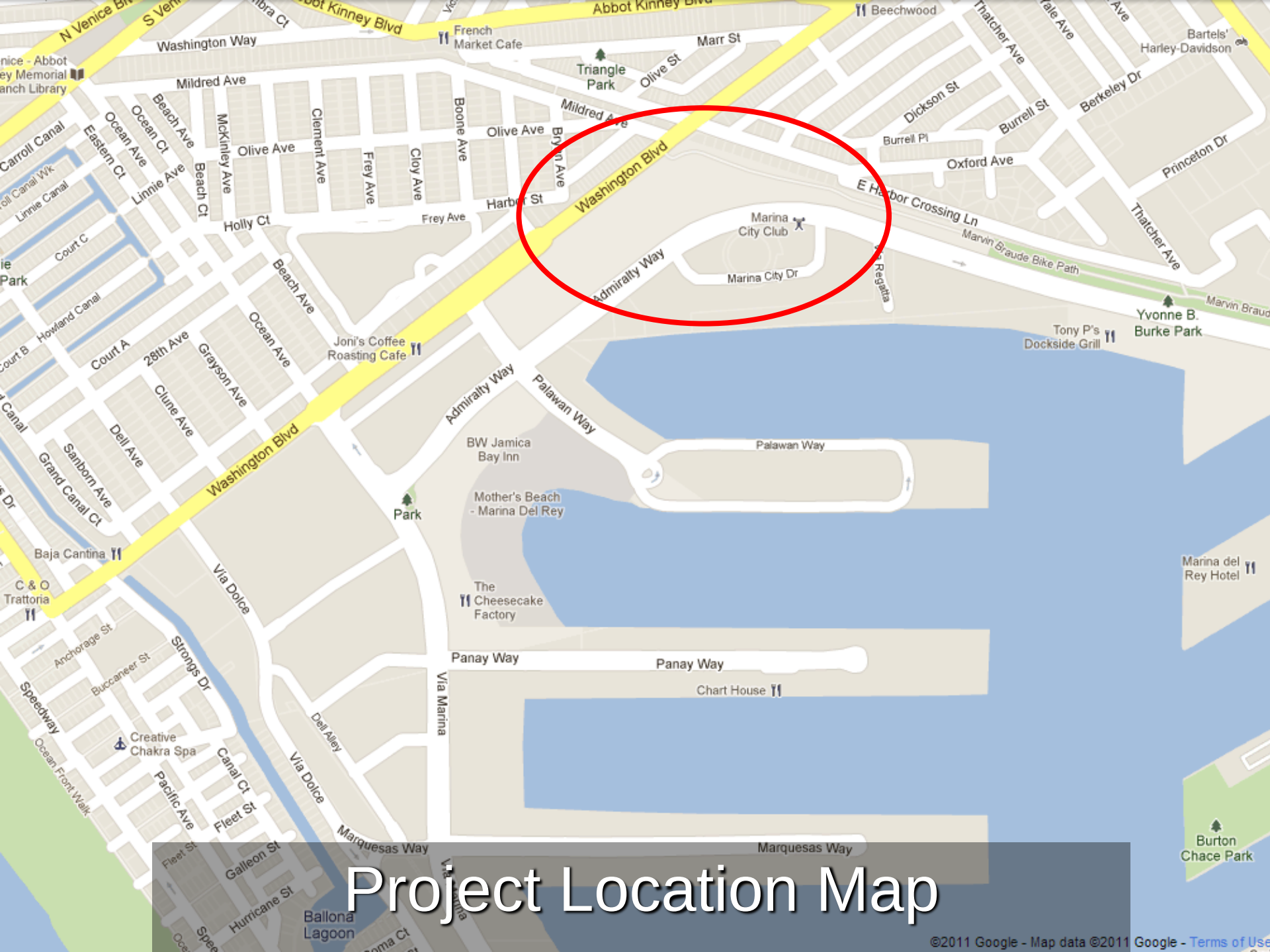
Project Details

Oxford Retention Basin

- Primarily a flood control facility
- Unique salt marsh habitat

Multi-Benefit Project

- Flood risk management
- Improve water quality
- Improve habitat
- Improve aesthetics and recreational opportunities


Project Location Map
Washington Blvd
Admiralty Way
Marina City Club
Marina City Dr
Palawan Way
Panay Way
Via Marina
Via Dolce
Marquesas Way
Chart House
BW Jamica Bay Inn
Mother's Beach - Marina Del Rey
Park
Joni's Coffee Roasting Cafe
Tony P's Dockside Grill
Yvonne B. Burke Park
Marina del Rey Hotel
Burton Chace Park
Ballona Lagoon
Abbot Kinney Blvd
Washington Way
Mildred Ave
Olive Ave
Harbor St
Frey Ave
Holly Ct
Beach Ave
Ocean Ave
Ocean Ct
Eastern Ct
Linnie Ave
McKinley Ave
Clement Ave
Boone Ave
Bryson Ave
Cloy Ave
Carroll Canal
Howland Canal
Court A
Court C
28th Ave
Grayson Ave
Clune Ave
Dell Ave
Sanborn Ave
Grand Canal Ct
Baja Cantina
C & O Trattoria
The Cheesecake Factory
Anchorage St
Buccaneer St
Strongs Dr
Speedway
Ocean Front Walk
Creative Chakra Spa
Pacific Ave
Canal Ct
Fleet St
Galleon St
Hurricane St
Dell Alley
Marr St
Olive St
Triangle Park
French Market Cafe
Beechwood
Bartels' Harley-Davidson
Thatcher Ave
Dickson St
Burrell St
Burrell Pl
Berkeley Dr
Oxford Ave
Princeton Dr
E Harbor Crossing Ln
Marvin Braude Bike Path
Regatta
Nice - Abbot
Memorial
Library
Canal Walk
Linnie Canal
Park
Court B
Court C
Court A
Canal
Dr
Ave
Ct
Ln
Pl
St
Way
Blvd
Dr
Park
Hotel
Lagoon
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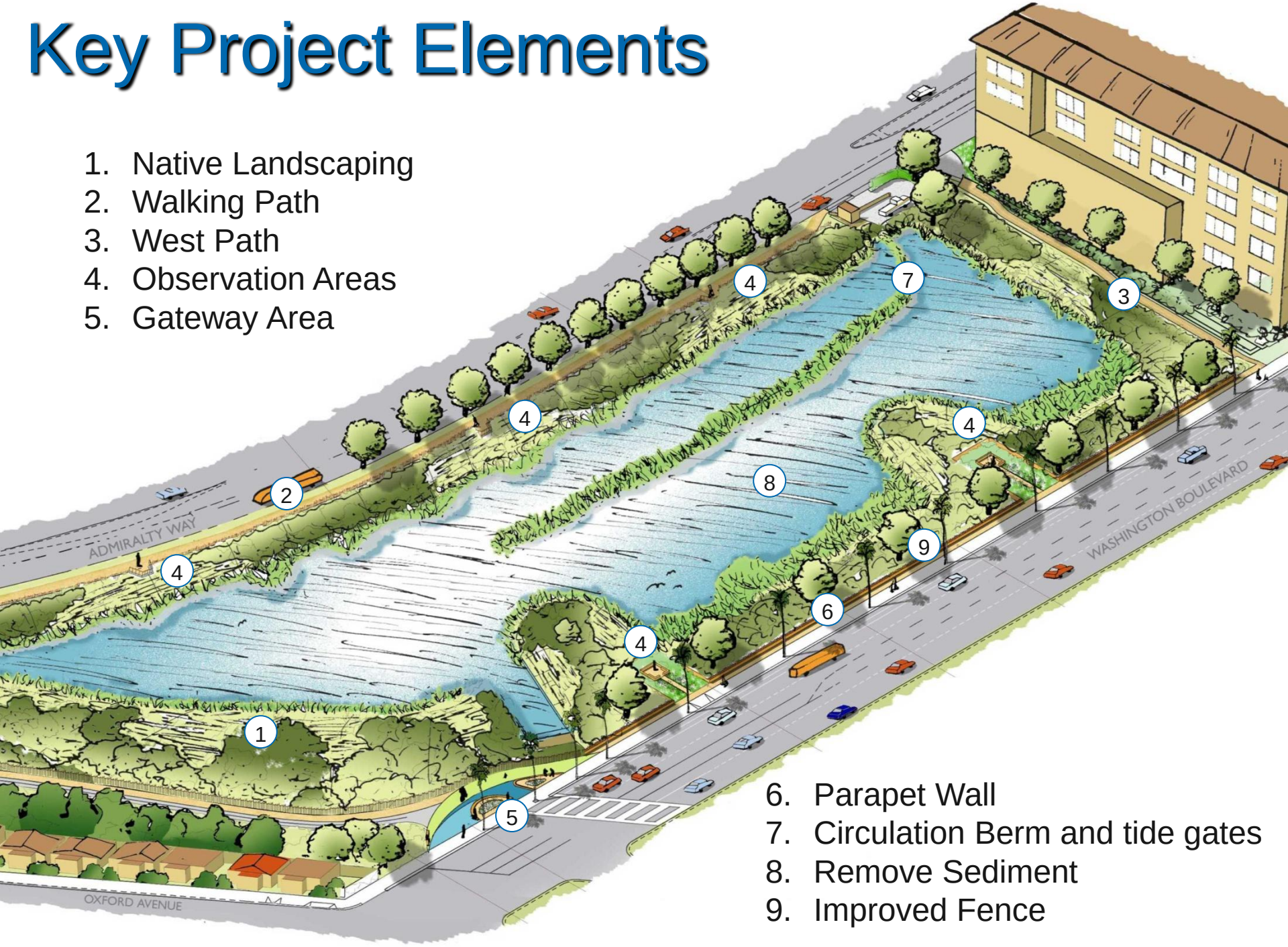
Key Project Elements

1. Native Landscaping
2. Walking Path
3. West Path
4. Observation Areas
5. Gateway Area



6. Parapet Wall
7. Circulation Berm and tide gates
8. Remove Sediment
9. Improved Fence

Admiralty Way: Parkway planting and path elevation change buffers pedestrian path from traffic.

Basin Overlook: Ornamental planting, seating and interpretive signage at lookouts.

ADMIRALTY WAY

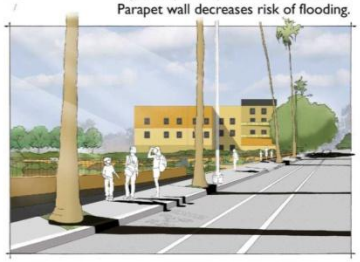
WASHINGTON BOULEVARD

Bike path and decomposed granite walking path, ornamental fencing and native planting

Washington Boulevard: View to the street with bike path, new Gateway paving, seatwalls, and bioswale planting

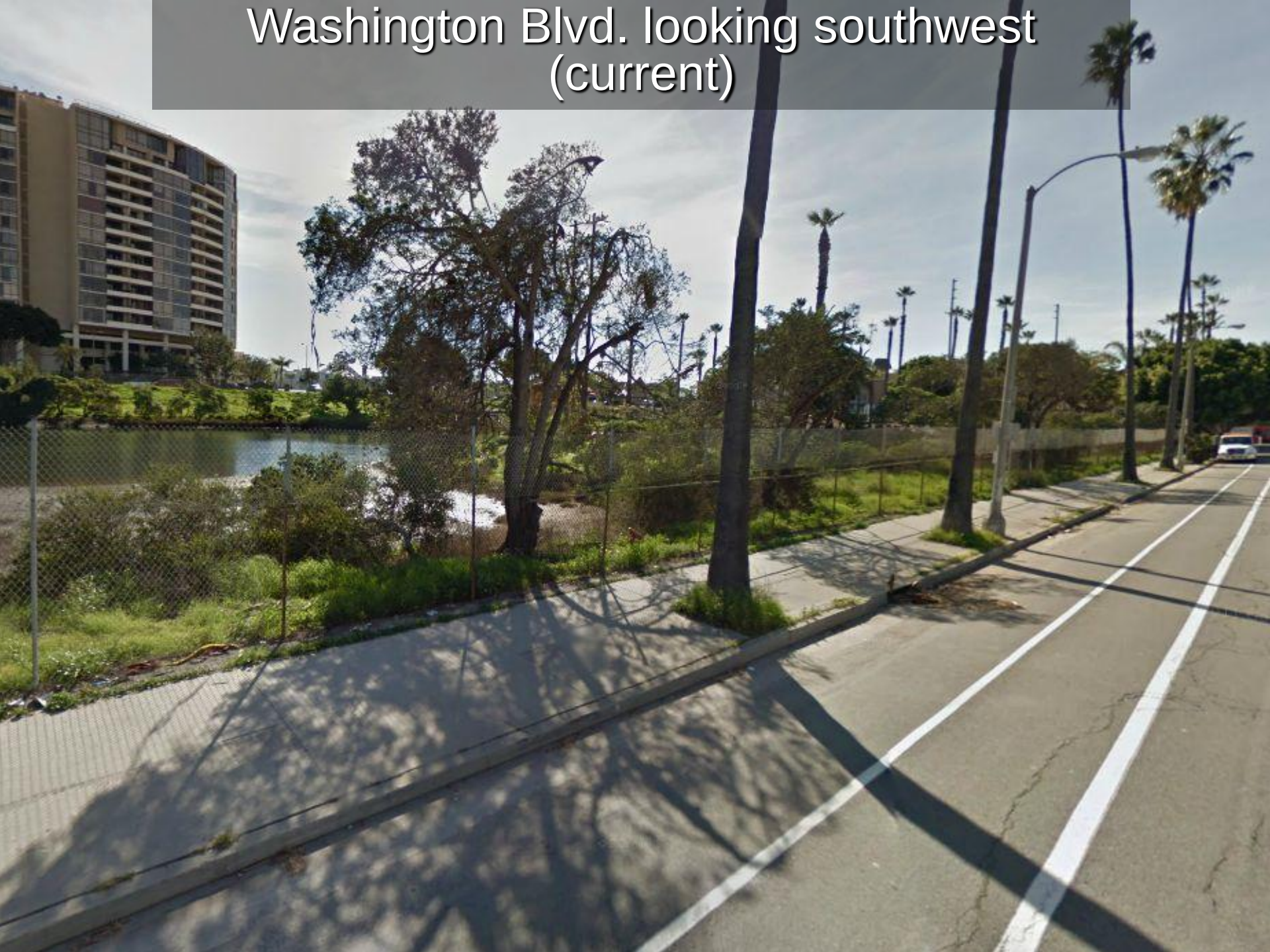
Gateway at Washington Boulevard: bike path, seatwalls, enhanced paving, bioswale planting.

Washington Boulevard: Sidewalk, decomposed granite parkway, and basin overlooks. Parapet wall decreases risk of flooding.



Admiralty Way Overlooks: Views into the basin, and interpretive signage.

West Path and Northwest Overlook
(Oceana development shown)


Washington Blvd. looking southwest
(current)

Washington Blvd. looking southwest (proposed)

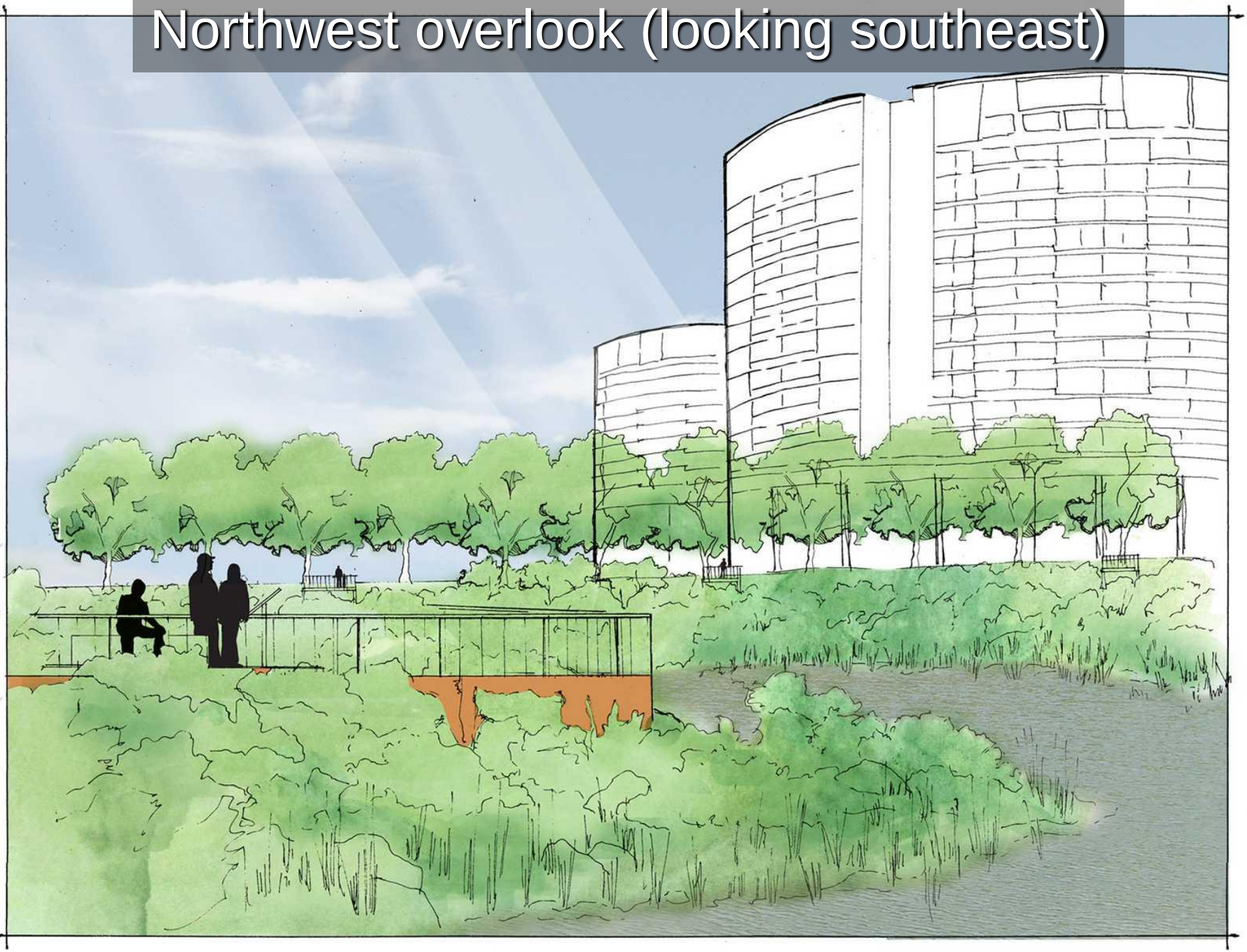
Gateway Area (current)


Gateway Area
(proposed)

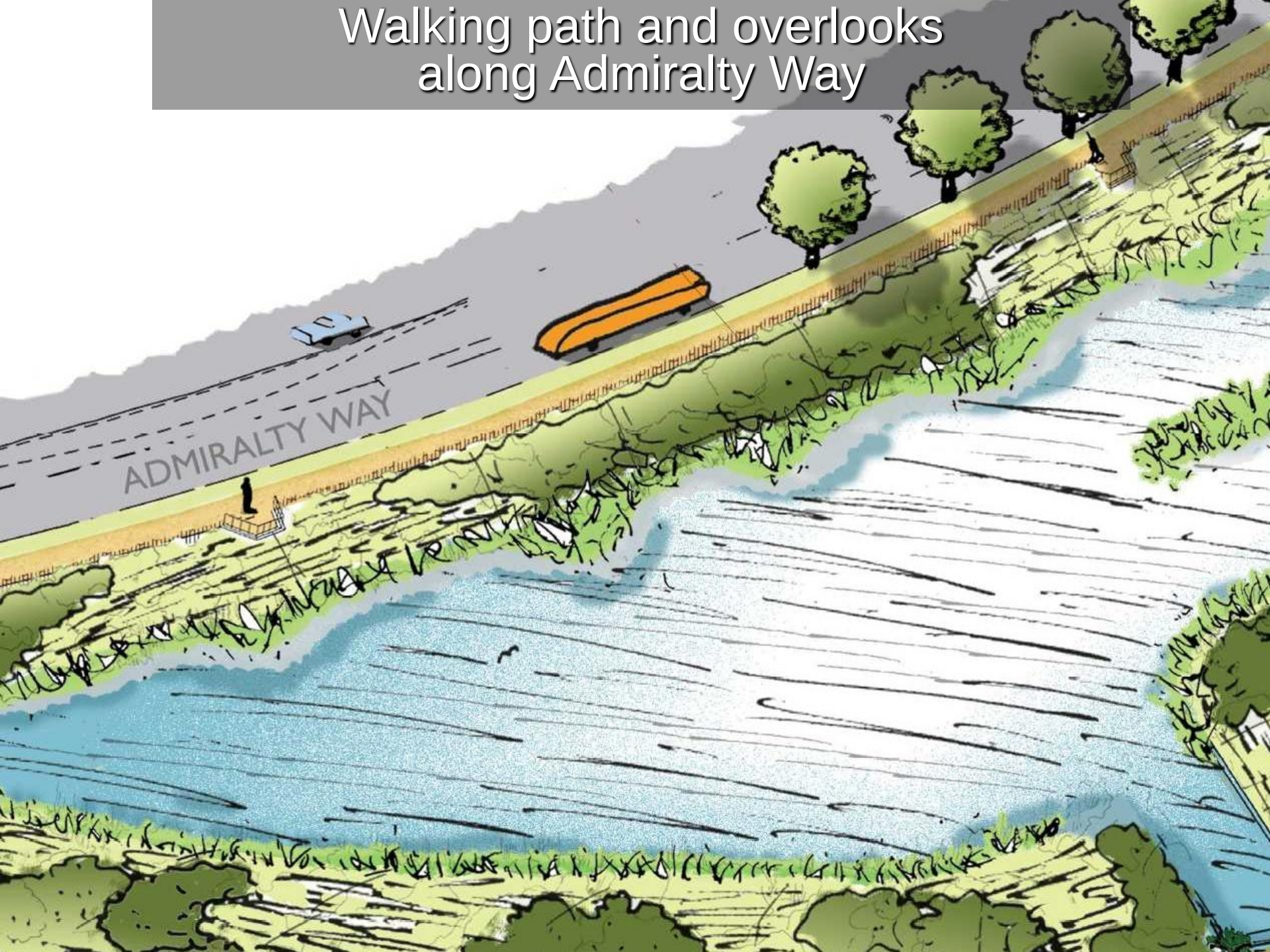
Gateway Area (proposed)

Proposed pedestrian path adjacent to existing bicycle path

Northwest overlook (looking southeast)



Walking path and overlooks along Admiralty Way



Admiralty Way looking west (current)

Admiralty Way looking west (proposed)

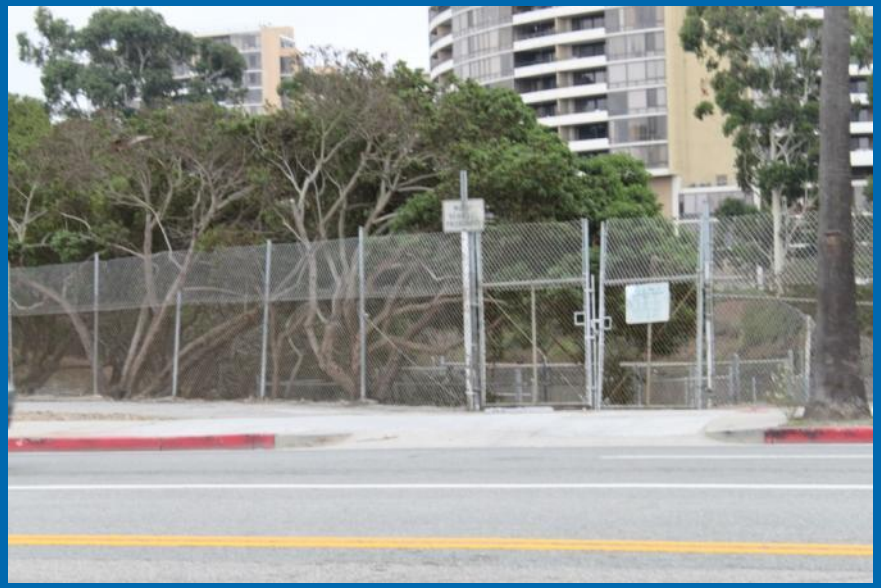
Benefits to Community

- Flood Risk Management
- Recreation opportunities
  - Walking/Jogging trail
  - Bicycle path (existing)
  - Observation areas
  - Bird watching
- Improved aesthetics
  - Enhanced fencing
  - Landscaping
  - Lighting
  - Signage
- Environmental benefits
  - Water quality
  - Habitat

Similar Site: Ballona Freshwater Lagoon

Similar Plant Palette – Madrona Marsh

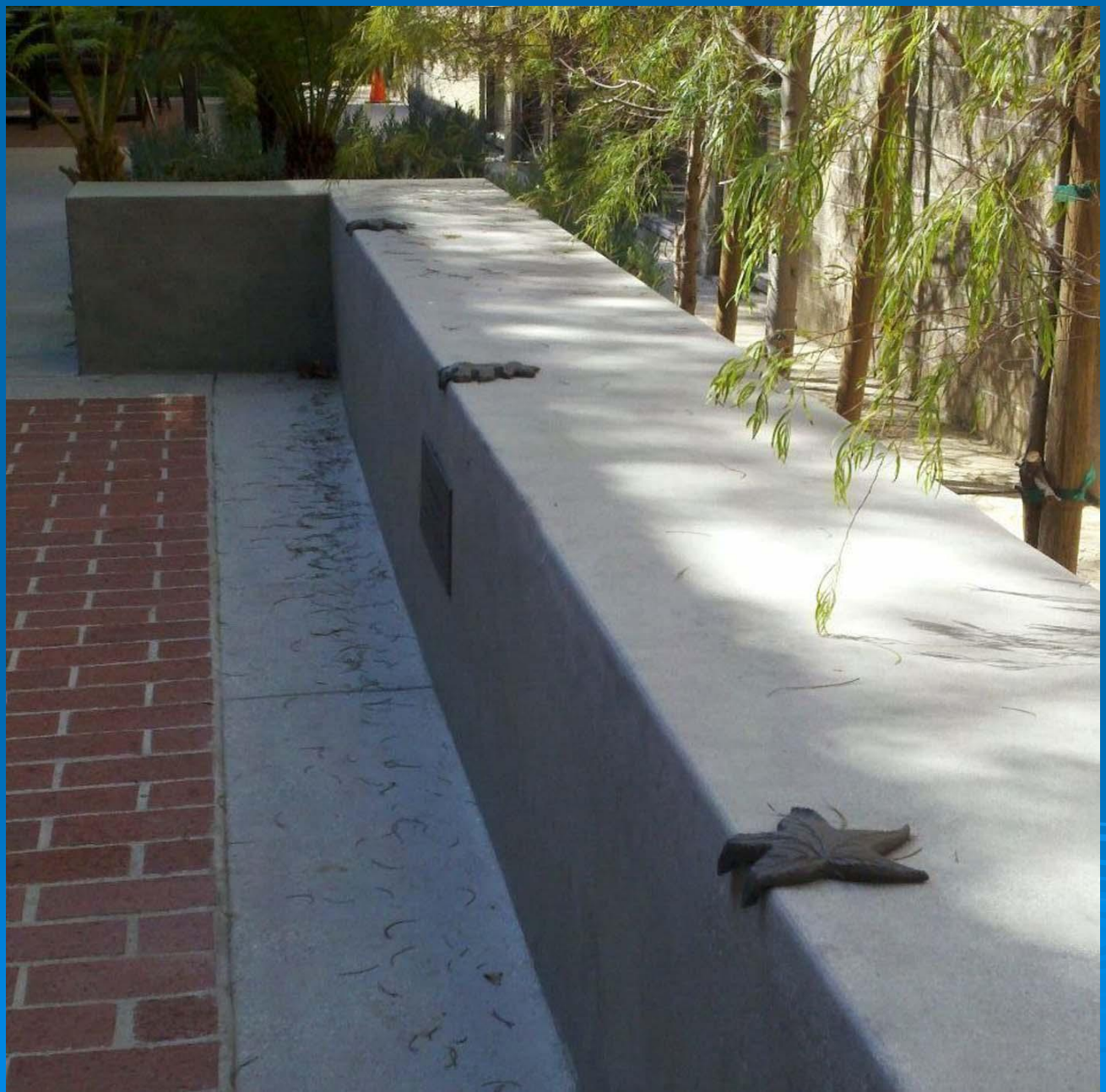
Fencing Options



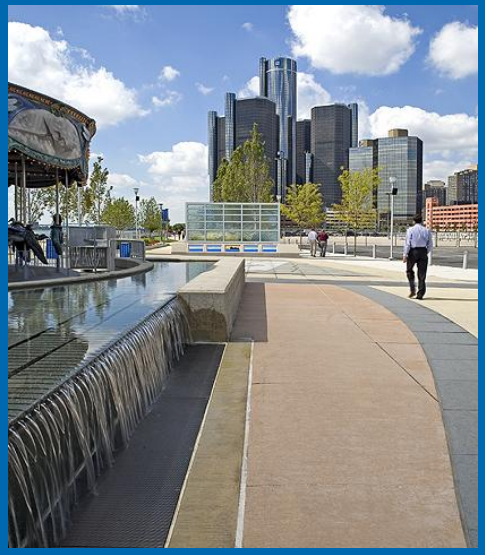
Similar Fence: Bora Bora Way

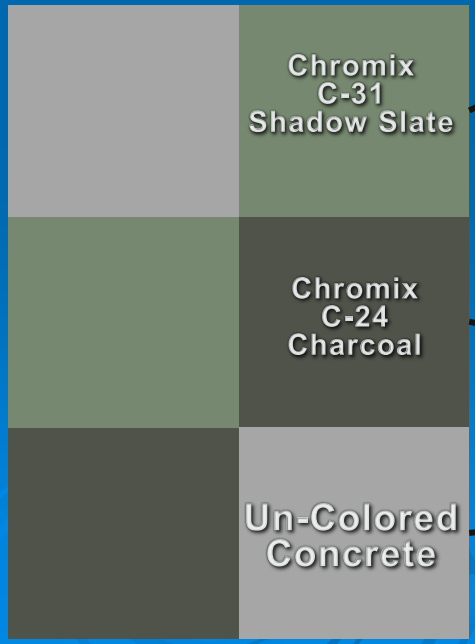
Similar Fence Pilasters

Example of Seat Wall and Skate Stops



Example of Colored Concrete



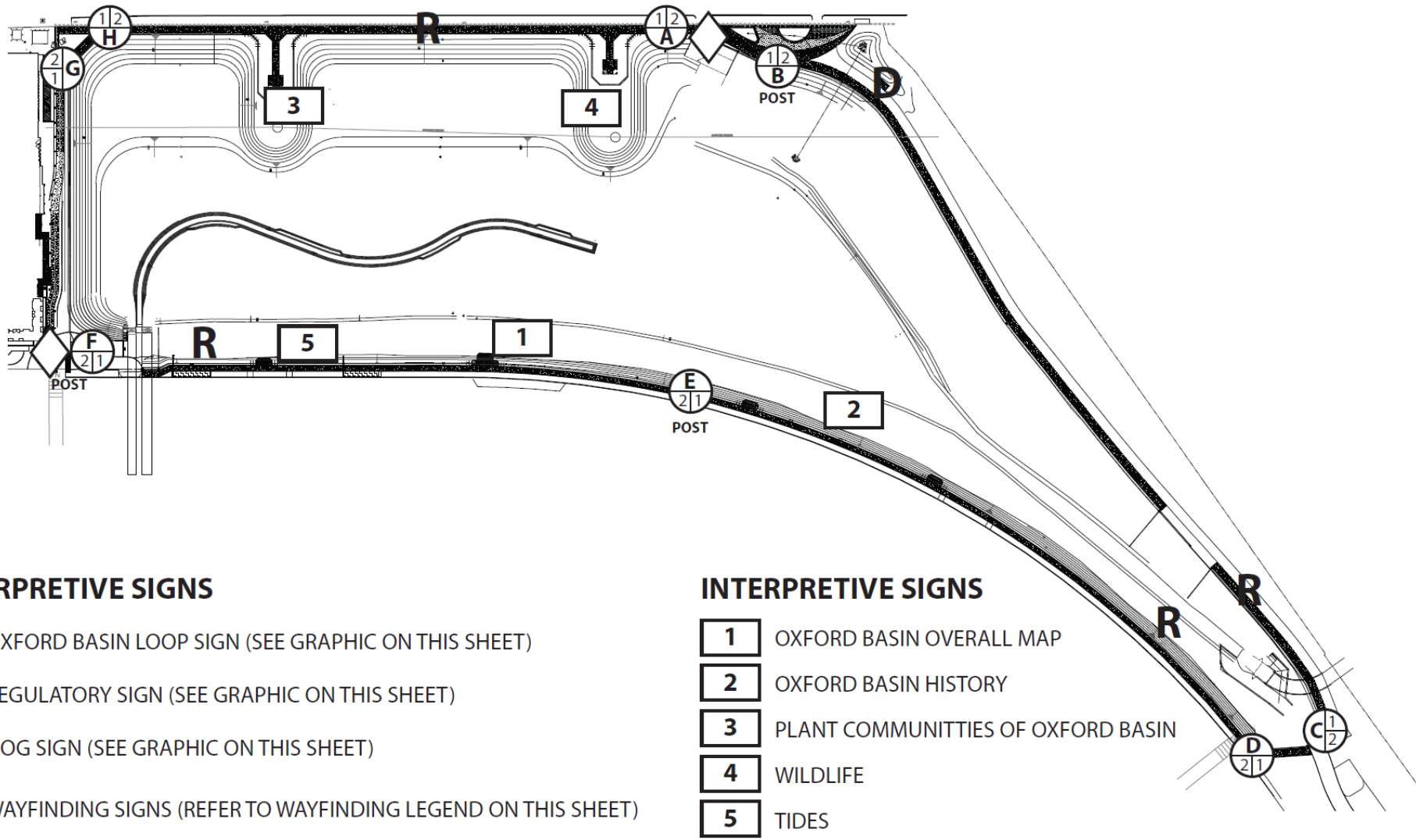


Example of Overlook

Example Site Features

Note: 8’ benches proposed

SIGN LOCATION PLAN



INTERPRETIVE SIGNS

- OXFORD BASIN LOOP SIGN (SEE GRAPHIC ON THIS SHEET)
- **R** REGULATORY SIGN (SEE GRAPHIC ON THIS SHEET)
- **D** DOG SIGN (SEE GRAPHIC ON THIS SHEET)
- WAYFINDING SIGNS (REFER TO WAYFINDING LEGEND ON THIS SHEET)

INTERPRETIVE SIGNS

1	OXFORD BASIN OVERALL MAP
2	OXFORD BASIN HISTORY
3	PLANT COMMUNITTIES OF OXFORD BASIN
4	WILDLIFE
5	TIDES

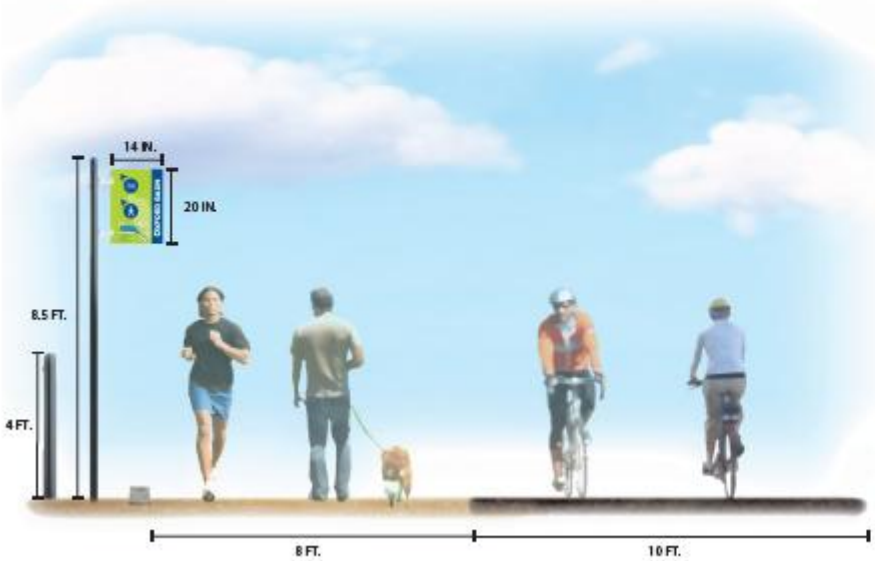
OXFORD BASIN SIGNAGE *(Version A)*

2/C Wayfinding Sign on Pilaster

◇ Loop Map Sign on Pilaster

R Regulatory Sign on Fence

D Dog Sign on Post



2/B Wayfinding Sign on Post

1/E Wayfinding Sign on Post

2/E Wayfinding Sign on Post

WAYFINDING SIGN LEGEND *(VERSION A)*

1/A

2/A

1/B

2/B

C/1

C/2

D/1

D/2

E/1

E/2

1/F

2/F

1/G

2/G

H/1

H/2

OXFORD BASIN NATURE LOOP

WE INVITE YOU TO EXPLORE THE OXFORD BASIN NATURE LOOP AND DISCOVER ITS UNIQUE AND DIVERSE HABITAT. SOME OF THE SPECIES FOUND AT THE BASIN ARE SENSITIVE AND ARE ENDANGERED. WE ENCOURAGE YOU TO FIND MORE ABOUT THE ANIMALS AND THE PLACE THEY CALL HOME AS YOU COME ENCOUNTER OUR FIVE OBSERVATION AREAS. FOLLOW THE SIGNS AS THEY WILL SHOW YOU THE TRAIL DIRECTION AND THE MILES YOU HAVE TRAVERSED.

APPROX. LOOP PERIMETER IS:

.66 MILES

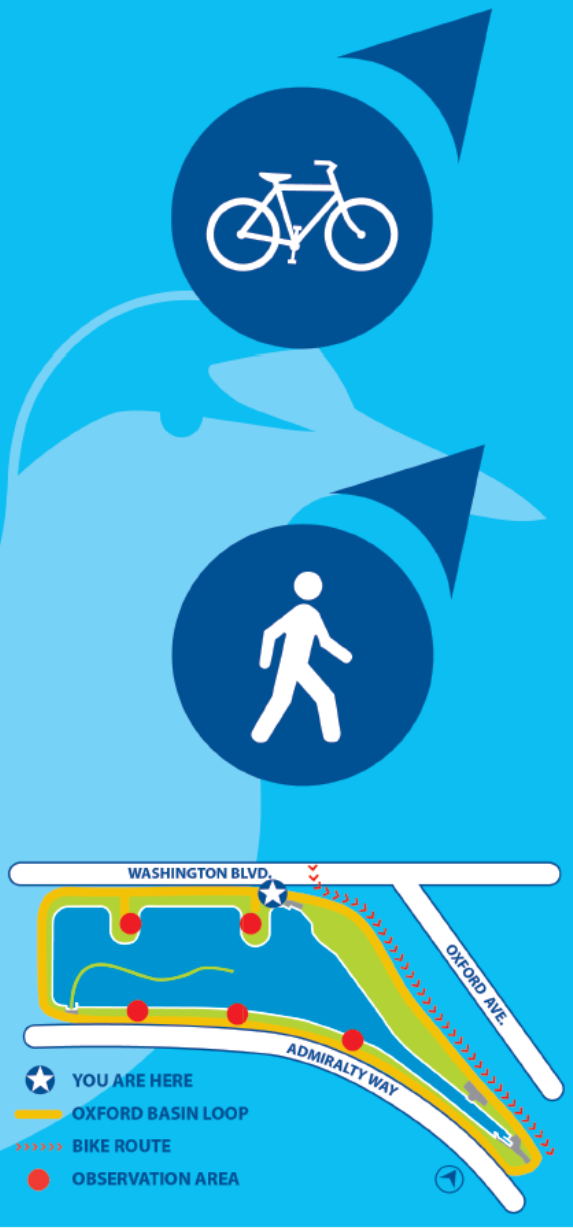
3 LAPS

= 2 MILES

OXFORD BASIN

◇ Loop Map Sign on Pilaster

OXFORD BASIN



OXFORD BASIN

Please see that your pets refrain from littering.

All pets must be on a leash not more than six feet long at all times, and are prohibited in planter areas. Violating owners will be cited. (LACC 19.12.1370)

OXFORD BASIN

SENSITIVE HABITAT AREA
DO NOT ENTER

WILDLIFE: Can You Find Me?

RESIDENTS OF OXFORD BASIN

1. **Mallard**
   Migrates :
   Nests :
2. **Anna's Hummingbird**
   Migrates:
   Nests:
3. **Yellow-Rumped Warbler**
   Migrates:
   Nests:
4. **Black Phoebe**
   Migrates:
   Nests:
5. **Cheekspot Goby**
   Migrates:
   Nests:
6. **Mosquito Fish**
   Migrates:
   Nests:
7. **Yellow-Rumped Warbler**
   Migrates:
   Nests:
8. **Arrow Goby**
   Migrates:
   Nests:
9. **Honey Bee**
   Migrates:
   Nests:
10. **Monarch Butterfly**
    Migrates:
    Nests:
11. **California Mud Snail**
    Migrates:
    Nests:
12. **Margined Spur-Throated Grasshopper**
    Migrates:
    Nests:

1 *Anas platyrhynchos* / **Mallard**

5 *Ilypnus gilberti* / **Cheekspot Goby**

9 *Apis* / **Honey Bee**

2 *Calypte anna* / **Anna's Hummingbird**

6 *Gambusia affinis* / **Mosquitos Fish**

10 *Danaus plexippus* / **Monarch Butterfly**

3 *Setophaga coronata* / **Yellow-rumped Warbler**

7 *Atherinops affinis* / **Topsmelt**

11 *Cerithidea californica* / **California Mud Snail**

4 *Sayornis nigricans* / **Black Phoebe**

8 *Clevelandia ios* / **Arrow Goby**

12 *Melanoplus marginatus* / **Margined Spur-throated Grasshopper**

LEAST TERN

MIGRATION

After formation of the new families, groupings of birds may appear at lacustrine settings in proximity to the coast. Late-season nesting may be renests or the result of late arrivals. In any case, the bulk of the population has left the breeding grounds by the end of August.

NESTING

The Least Tern arrives at its breeding grounds in late April. Nests are situated on barren to sparsely vegetated places near water, normally on sandy or gravelly substrates. Nests typically house two or three, but it is not rare to consist of either one or four eggs. Both female and male incubate the eggs for a period of about three weeks, and both parents tend the semiprecocial young. Young birds can fly at age four weeks.

Sterna antillarum / **Least Tern**

OXFORD BASIN MAP

OXFORD BASIN

PUBLIC WORKS

Caring for Your Coast
Department of Beaches & Harbors

THE PLANT COMMUNITIES OF OXFORD BASIN

COASTAL SALT MARSH

This is a wetland plant community that occurs along the coast. Salicornia viginica, Pickelweed is a common species in this community and is tolerant of salt water. Other plants that are often seen in this community include Alkali Heath, Saltgrass, and Southwest Spiny Rush.

COASTAL SAGE SCRUB

This habitat occurs along the California coast from Ventura County to San Diego County and is characterized by low-growing, aromatic plants. Two common coastal sage scrub plants are Artemesia californica, California Sagebrush, and Encelia californica, California Encelia (shown below). Other plants that are often seen in this community include California Buckwheat, Lemonade Berry, and Purple Needlegrass.

WILLOW SCRUB

This dense plant community is important browsing and foraging habitat for many riparian wildlife species. Some common plants in this community include the small tree Salix exigua, Sandbar or Narrow Leaf Willow. Other plants that are often seen in this community include California Blackberry, Desert Grape, Mexican Elderberry, Mulefat, and California Wild Rose.

Distichlis spicata /
Salt Grass

Juncus acutus leopoldii /
Southwestern Spiny Rush

Salicornia virginica /
Common Pickleweed

Frankenia salina /
Alkali Heath

What is a NATIVE PLANT?

Nasella pulchra /
Purple Neddlegrass

Artemisia californica /
California Sagebrush

Erigonum fasciculatum /
California Buckwheat

Encelia californica /
California Encelia

Rubus ursinus /
California Blackberry

Vitis girdiana /
Desert Grape

Baccharis salicifolia /
Mulefat

Salix exigua /
Narrow Leaf Willow

OXFORD BASIN

THE HISTORY OF OXFORD BASIN

1928: SITE USED FOR AGRICULTURE

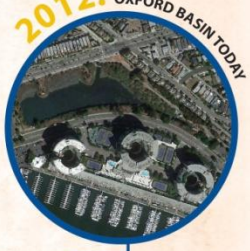
1947: SITE USED INDUSTRIALLY

1956: SITE REHABILITATES FOR FUTURE BASIN

1965: OXFORD BASIN IS BUILT

1972: CITY CLUB TOWERS BEGIN

1989



2012: OXFORD BASIN TODAY

1920 1930 1940 1950 1960 1970 1980 1990 2000 2010 2020

1880
MARSHLANDS USED AS DUCK HUNTING GROUNDS

1934
VENICE DUMP OPENS IN THE SITE TO BE OXFORD BASIN

1937
ERECTION OF OIL WELLS THROUGHOUT MARINA DEL REY

1957
MARINA DEL REY HARBOR BASINS BEGINS

1963
MARINA DEL REY HARBOR BASINS COMPLETE

1965
MARINA DEL REY YACHT CLUB CONSTRUCTION BEGINS

1965
MARINA DEL REY YACHT CLUB CONSTRUCTION BEGINS

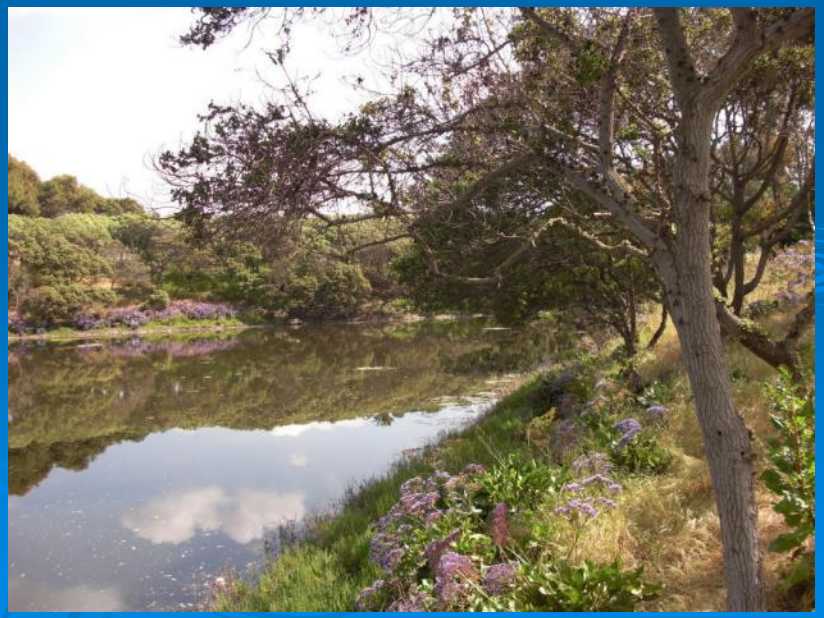
OXFORD BASIN

PUBLIC WORKS

Caring for Your Coast
Department of Beaches & Harbors

Recent Activity

- Project Design: 100% Plans currently under review
- Environmental document scheduled for public review in April 2013
- Permit applications submitted in September 2012
  - Army Corps, CA Fish & Wildlife, Regional Water Board



Estimated Total Project Cost & Construction Schedule

- Target Construction Start: Mid 2013 – Early 2014
- Estimated Total Project Cost: $10.7 Million

County of Los Angeles
Department of Public Works
dpw.lacounty.gov

JOSHUA SVENSSON, P.E.
Watershed Management Division

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County of Los Angeles
Department of Public Works
dpw.lacounty.gov

MENERVA ARIKI, P.E.
Watershed Management Division

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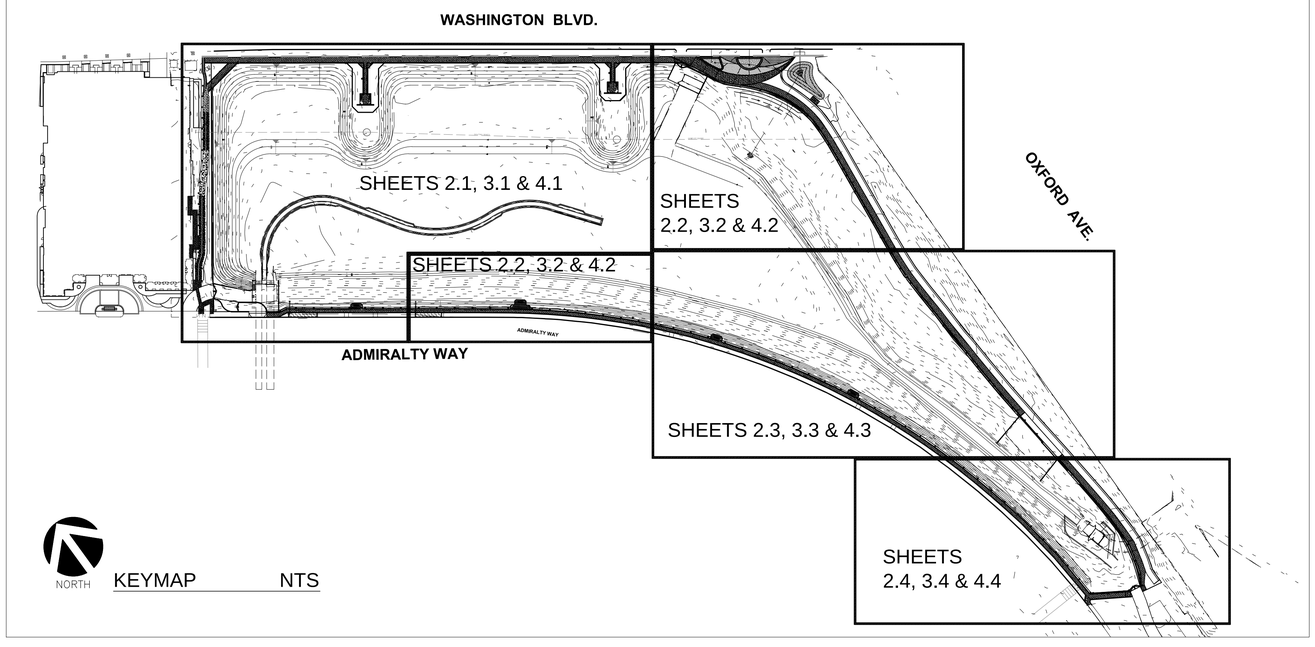
LANDSCAPE IMPROVEMENTS

FOR

OXFORD RETENTION BASIN
MULTI-USE ENHANCEMENT PROJECT



KEYMAP NTS

SHEET INDEX:

SHEET #	TITLE
LS-1.1	LANDSCAPE PLAN INDEX & KEY MAP
LS-1.2	NOTES, ABBREVIATIONS, CONSTRUCTION & MATERIALS LEGEND
LS-2.1	CONSTRUCTION PLAN
LS-2.2	CONSTRUCTION PLAN
LS-2.3	CONSTRUCTION PLAN
LS-2.4	CONSTRUCTION PLAN
LS-2.5	ENLARGEMENTS
LS-2.6	SECTIONS
LS-2.7	CONSTRUCTION DETAILS
LS-2.8	CONSTRUCTION DETAILS
LS-2.9	CONSTRUCTION DETAILS
LS-2.10	CONSTRUCTION DETAILS
LS-2.11	CONSTRUCTION DETAILS
LS-3.0	IRRIGATION LEGENDS
LS-3.1	HYDROZONE PLAN
LS-3.2	IRRIGATION PLAN
LS-3.3	IRRIGATION PLAN
LS-3.4	IRRIGATION PLAN
LS-3.5	IRRIGATION PLAN
LS-3.6	IRRIGATION DETAILS
LS-3.7	IRRIGATION DETAILS
LS-4.0	PLANTING LEGEND & NOTES
LS-4.1	PLANTING PLAN
LS-4.2	PLANTING PLAN
LS-4.3	PLANTING PLAN
LS-4.4	PLANTING PLAN
LS-4.5	PLANTING DETAILS

PLAN LS

DIGALERT
CALL 8-1-1 TOLL FREE
2 workings days before you dig

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED LANDSCAPE ARCHITECT STEPHEN ZUREK 3577 1-14-13 STATE OF CALIFORNIA

PROJECT LANDSCAPE ARCHITECT

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN
MULTI-USE ENHANCEMENT PROJECT

LANDSCAPE PLAN INDEX & KEY MAP

LS-1.1

FCC0001176 | PCA EF21507000 | | SHEET 1 OF 27

MATERIALS LEGEND:

SYMBOL	DESCRIPTION	SIZE	COLOR/MANUFACTURER	FINISH	DETAIL REF.
	CONCRETE PAVING (PCC)	4" PEDESTRIAN 6" VEHICULAR	NATURAL GRAY	BROOM FINISH	DET B / LS-2.8
	SEAT WALL (PCC)	18" X 24"	NATURAL GRAY, APPLY TOPCOAT GRAFFITI PREVENTION MATERIAL BY KRYSTALKOAT OR APPROVED EQUAL.	LIGHT SAND-BLAST	DET A / LS-2.10
	CONCRETE PAVING, (PCC) WITH INTEGRAL COLOR	6"	INTEGRAL COLOR: (C-24) CHARCOAL, CHROMIX ADMIXTURE WITH A WATERBORNE, LOW VOC, ENVIRONMENTALLY SOUND, CLEAR CURING COMPOUND AND SEALER, CURESEAL-W, BOTH BY L.M. SCOFIELD COMPANY OR APPROVED EQUAL(S).	BROOM FINISH	DET B / LS-2.8
	CONCRETE PAVING, (PCC) WITH INTEGRAL COLOR	6"	INTEGRAL COLOR: (C-31) SHADOW SLATE, CHROMIX ADMIXTURE WITH A WATERBORNE, LOW VOC, ENVIRONMENTALLY SOUND, CLEAR CURING COMPOUND AND SEALER, CURESEAL-W, BOTH BY L.M. SCOFIELD COMPANY OR APPROVED EQUAL(S).	BROOM FINISH	DET B / LS-2.8
	CONCRETE HEADER (PCC)	6" X 12"	NATURAL GRAY	BROOM FINISH	DET D / LS-2.8
	DECOMPOSED GRANITE, (D.G.)	4"	GOLD WITH STABILIZER	SMOOTH SURFACE	DET A / LS-2.8
	COMPOSITE WOOD DECKING	2" THICK	FIRE DEFENSE, COLOR: 'SADDLE, WEATHERED', BY TREX OR APPROVED EQUAL.		DET D / LS-2.7
	DECK RAILING, TUBULAR STEEL	3'-6"'	COLOR: BLACK		DET A / LS-2.7
	TUBULAR STEEL FENCE	3-4'	COLOR: BLACK		DET B / LS-2.9
	TUBULAR STEEL FENCE	7-8'	COLOR: BLACK		DET A / LS-2.9
	TUBULAR STEEL DECORATIVE PANEL	3-4'	COLOR: BLACK		DET E / LS-2.10
	SINGLE GATE, TUBULAR STEEL	4'	COLOR: BLACK		DET D / LS-2.10
	DOUBLE GATE, TUBULAR STEEL	8'	COLOR: BLACK		DET D / LS-2.9
	SLIDING GATE, TUBULAR STEEL	8'	COLOR: BLACK		DET H / LS-2.9
	LITTER RECEPTACLE	32 GALLON	CARNIVAL, MODEL # CRTR-32-P-LID-D-SF, BLACK POWDER COATED, BY THOMAS STEELE OR APPROVED ALTERNATE.		DET E / LS-2.8 and LS-2.11
	INTERPRETIVE SIGN	-	SIGN, MODEL # SP1218, BLACK POST,WITH 2'x3' EXTERIOR dHPL 1/2" GRAPHIC PANEL BY FOSSIL INDUSTRIES OR APPROVED EQUAL.		DET G / LS-2.8
	BICYCLE U SHAPE RACK WITH LEAN BAR	SEE DETAIL	BICYCLE RACK, MODEL # UX200-LB-IG-P, BLACK COLOR POWDER COAT FINISH, BY BELSON OUTDOORS OR APPROVED ALTERNATE BIKE RACK.		DET F / LS-2.8
	BOLLARD	4.5" DIA.	BOLLARD, MODEL # BOL450-IG-P, LEXINGTON BLACK COLOR POWDER COAT FINISH, BY BELSON OUTDOORS OR APPROVED ALTERNATE.		DET J / LS-2.8
	PET WASTE STATION	-	DOGIPOT MODEL # DP-1010, GREEN, BY BELSON OUTDOORS OR APPROVED ALTERNATE.		DET I / LS-2.8
	BENCH	8'	CARNIVAL, MODEL #CRB-8-P, WITH CENTER ARMREST AND HORIZONTAL STRAPS, BLACK COLOR POWDER COATED FINISH, BY THOMAS STEELE OR APPROVED ALTERNATE.		DET H / LS-2.8
	FLAT BENCH	8'	CARNIVAL, MODEL #CRF-8-CA-VS-P, WITH ARMRESTS AND CENTER ARMREST, BLACK COLOR POWDER COATED FINISH, BY THOMAS STEELE OR APPROVED ALTERNATE.		DET D / LS-2.7
	PILASTER, SPLITFACE CMU W/ CAP	VARIES	8" x 8" x 16" SPLIT FACE CONCRETE BLOCK, COOL GRAY COLOR, BY ANGELUS BLOCK OR APPROVED EQUAL. PRECAST CONCRETE CAP, MODEL #Q-E13PC, COLOR NATURAL GREY AND FINISH T3 - SANTA FE SANDBLAST BY QUICKCRETE OR APPROVED EQUAL.		DET B / LS-2.7
	BOLLARD LIGHT WALL LIGHT	-			REFER TO PLAN E

NOTE: REFER TO GREENBOOK SECTION 303-7 FOR INTEGRAL COLORED CONCRETE

GENERAL CONSTRUCTION & REMOVAL NOTES:

1. PLANS ARE DIAGRAMMATIC. THE CONTRACTOR SHALL BRING TO THE ATTENTION OF THE ENGINEER ANY PERCEIVED DISCREPANCY BEFORE THE START OF CONSTRUCTION.
2. THE CONTRACTOR SHALL LAY OUT FORMWORK AND OBTAIN APPROVAL FROM THE ENGINEER PRIOR TO PLACING CONCRETE, TYPICAL.
3. CONTRACTOR SHALL PROVIDE EXPANSION JOINTS WITH SEALANT WHERE PAVING ABUTS CURBS, BUILDINGS AND COLUMNS, STRUCTURES, AND EXISTING STRUCTURES.
4. CONTRACTOR SHALL SUBMIT SAMPLES FOR COLORED CONCRETE. CONTRACTOR TO PROVIDE 3'X3' SAMPLES IN FIELD FOR LANDSCAPE ARCHITECT'S REVIEW AND APPROVAL BY THE ENGINEER PRIOR TO COMMENCING WORK. (SAMPLES TO INCLUDE COLOR AND FINISH).
5. ALL EXISTING ELEMENTS NOT DESIGNATED TO BE REMOVED SHALL BE PROTECTED IN PLACE. REFER TO SITE PLAN EXISTING FACILITIES.
6. EXISTING SURVEY MONUMENTS TO REMAIN. PRIOR TO REMOVAL (IF NECESSARY), COORDINATE WITH LA COUNTY SURVEY DIVISION (DAVID FARRELL, 626-458-5144), TO PERPETUATE THE MONUMENTS.

CONSTRUCTION LEGEND:

1. SEAT WALL (PCC), 18" X 24", POURED IN PLACE CONCRETE MIX 560-C-3250, NATURAL GRAY. SEE SHEET LS-2.10, DETAIL A.
2. CONCRETE PAVING (PCC) 6" THICK, MIX 520-C-2500, WITH INTEGRAL COLOR CHARCOAL (C-24) BY L.M. SCOFIELD COMPANY OR APPROVED EQUAL. SEE SHEET LS-2.8, DETAIL B.
3. CONCRETE PAVING (PCC) 6" THICK, MIX 520-C-2500, WITH INTEGRAL COLOR SHADOW SLATE (C-31) BY L.M. SCOFIELD COMPANY OR APPROVED EQUAL. SEE SHEET LS-2.8, DETAIL B.
4. CONCRETE PAVING (PCC) 4" THICK, MIX 520-C-2500, NATURAL GRAY. SEE SHEET LS-2.8, DETAIL B.
5. CURB RAMP, REFER TO CALTRANS RSP A88A, CASE G.
6. CONCRETE HEADER (PCC) 6" X12", SEE SHEET LS-2.8, DETAIL D.
7. DECOMPOSED GRANITE W/ STABLIZER, COLOR TO BE GOLD. SEE SHEET 20 (LS-2.8), DETAIL A.
8. FENCE ON WALL, TUBULAR STEEL 3'. SEE SHEET LS-2.9, DETAIL C.
9. FENCE ON WALL, TUBULAR STEEL 7'. SEE SHEET LS-2.9, DETAIL A.
10. FENCE ON GRADE, TUBULAR STEEL 4'. SEE SHEET LS-2.9, DETAIL G.
11. FENCE ON GRADE, TUBULAR STEEL 8'. SEE SHEET LS-2.9, DETAIL F.
12. DOUBLE GATE, TUBULAR STEEL 8'. SEE SHEET LS-2.9, DETAIL D.
13. FENCE ON SLOPE, TUBULAR STEEL 8'. SEE SHEET LS-2.10, DETAIL C.
14. SLIDING GATE, TUBULAR STEEL 8'. SEE SHEET LS-2.9, DETAIL H.
15. LITTER RECEPTACLE. REFER TO MATERIALS LEGEND (THIS SHEET) FOR MAKE/MODEL INFO. SEE SHEET LS-2.8, DETAIL E. (TOTAL 10)
16. FLAT BENCH. REFER TO MATERIALS LEGEND (THIS SHEET) FOR MAKE/MODEL INFO. SEE SHEET LS-2.7, DETAIL D. (TOTAL 4)
17. BENCH. REFER TO MATERIALS LEGEND (THIS SHEET) FOR MAKE/MODEL INFO. SEE SHEET LS-2.8, DETAIL H. (TOTAL 2)
18. BICYCLE U SHAPE RACK W/ LEAN BAR. REFER TO MATERIALS LEGEND (THIS SHEET) FOR MAKE/MODEL INFO. SEE SHEET LS-2.8, DETAIL F. (TOTAL 3)
19. BOLLARD. REFER TO MATERIALS LEGEND (THIS SHEET) FOR MAKE/MODEL INFO. SEE SHEET LS-2.8, DETAIL F. (TOTAL 2)
20. PET WASTE STATION. REFER TO MATERIALS LEGEND (THIS SHEET) FOR MAKE/MODEL INFO. SEE SHEET LS-2.8, DETAIL I. (TOTAL 1)
21. INTERPRETIVE SIGN. REFER TO MATERIALS LEGEND (THIS SHEET) FOR MAKE/MODEL INFO. SEE SHEET LS-2.8, DETAIL G. AND LS-2.11 (TOTAL 5)
22. BIOSWALE, SEE SHEET LS-2.10, DETAIL B.
23. PILASTER, SPLIT FACE CMU W/ CAP. SEE SHEET LS-2.7, DETAIL B.
24. BIKE PATH, REFER TO SHEET LS-2.6.
25. TUBULAR STEEL, DECORATIVE PANEL, SEE SHEET LS-2.10, DETAIL E.
26. LIGHT. REFER TO PLAN E FOR ELECTRICAL.
27. COMPOSITE WOOD DECKING. REFER TO MATERIALS LEGEND (THIS SHEET) FOR MAKE/MODEL INFO. SEE SHEET LS-2.7, DETAIL D.
28. DECK RAILING, TUBULAR STEEL, SEE SHEET LS-2.7, DETAIL A.
29. RETAINING WALL PER PLAN RD.
30. IMPORTED TOP SOIL TO 24" DEEP
31. SINGLE GATE, TUBULAR STEEL 4', SEE DETAIL D, SHEET LS-2.10
32. WAYFINDING SIGNAGE, SEE SHEET LS-2.7 DETAIL B AND SHEET LS-2.11

ABBREVIATION LEGEND:

&	AND
@	AT
℄	CENTERLINE
Ø	DIAMETER
#	NUMBER OR POUNDS
AC	ASPHALTIC CONCRETE
A.D.	AREA DRAIN
AGG.	AGGREGATE
ALT.	ALTERNATIVE
ARCH.	ARCHITECTURAL
ASPH.	ASPHALT
AVE.	AVENUE
B.C.	BOTTOM OF CURB OR BEGINNING OF CURVE
B.C.R.	BEGINNING CURVE RADIUS
BLDG.	BUILDING
BLVD.	BOULEVARD
B.M.	BENCH MARK
B.W.	BOTH WAYS
C.B.	CATCH BASIN
C.J.	CONTROL JOINT
C.L.	CHAIN LINK
CLR.	CLEAR
C.M.U.	CONCRETE MASONRY UNIT
C.O.	CLEAN OUT
CONC.	CONCRETE
CONT.	CONTINUOUS, CONTINUED
CTR.	CENTER
DBL.	DOUBLE
DEPT.	DEPARTMENT
DET.	DETAIL
D.F.	DOUGLAS FIR
D.G.	DECOMPOSED GRANITE
DIA.	DIAMETER
DIM.	DIMENSION
DPW	DEPARTMENT OF PUBLIC WORKS
DWG.	DRAWING
DWP	DEPARTMENT OF WATER AND POWER
E.	EAST
E.C.R.	END CURVE RADIUS
EXIST.	EXISTING
EA.	EACH
E.J.	EXPANSION JOINT
EL. OR ELEV.	ELEVATION
ELEC.	ELECTRICAL
ENCL.	ENCLOSURE
EQ.	EQUAL, EQUALLY
EQUIP.	EQUIPMENT
EXP.	EXPANSION
F.G.	FINISHED GRADE
F.H.	FIRE HYDRANT
F.F.E.	FINISHED FLOOR ELEVATION
F.L.	FLOW LINE
F.S.	FINISHED SURFACE
FT.	FEET OR FOOT
FTG.	FOOTING
GA.	GAUGE
GALV.	GALVANIZED
G.V.	GATE VALVE
GAL.	GALLON
G.W.	GUY WIRE
H.B.	HOSE BIBB
HOR. OR HORIZ.	HORIZONTAL
H.P.	HIGH POINT
HT. OR HGT.	HEIGHT
I.D.	INSIDE DIAMETER
INV.	INVERT
IRR.	IRRIGATION
JT.	JOINT
L.	LONG OR LENGTH
LAB.	LABORATORY
LBS.	POUNDS
LT.	LIGHT
MATL.	MATERIAL
MAX.	MAXIMUM
MECH.	MECHANICAL
MFR.	MANUFACTURER
M.H.	MANHOLE
MIN.	MINIMUM
MISC.	MISCELLANEOUS
N	NORTH
N.I.C.	NOT IN CONTRACT
NO.	NUMBER
NOM.	NOMINAL
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
P.A.	PLANTING AREA
P.B.	PULL BOX
PERF.	PERFORATED
P.L.	PROPERTY LINE
PLYWD.	PLYWOOD
P.O.C.	POINT OF CONNECTION
P.P.	POWER POLE
PREFAB.	PREFABRICATED
PROP.	PROPERTY
PR. REG.	PRESSURE REGULATOR
P.T.	PRESSURE TREATED
PVMT.	PAVEMENT
Q.C.	QUICK COUPLER
R.	RISERS OR RADIUS
RAD.	RADIUS
R.C.V.	REMOTE CONTROL VALVE
RD.	ROAD
REINF.	REINFORCED
REV.	REVISED OR REVISION
R.O.W.	RIGHT OF WAY
R.U.	RELOCATE UTILITY
RWD.	REDWOOD
S.	SOUTH
SCE.	SOUTHERN CALIFORNIA EDISON
SCH.	SCHEDULE
S.D.	STORM DRAIN
SEC.	SECTION
SHT.	SHEET
SIM.	SIMILAR
SPECS.	SPECIFICATION
SPR.	SPRINKLER
SQ.	SQUARE
ST.	STREET
STL.	STEEL
SYM.	SYMBOL
T.	TREADS
T.C.	TOP OF CURB
T.O.D.	TOP OF DRAIN
TEL.	TELEPHONE
TEMP.	TEMPORARY
T.G.	TOP OF GRADE
T & G.	TONGUE AND GROOVE
T.P.	TOP OF PAVEMENT
T.S.	TUBE STEEL
T.W. OR T.O.W.	TOP OF WALL
TYP.	TYPICAL
U.O.N.	UNLESS OTHERWISE NOTED
V.	VALVE
V.B.	VALVE BOX
VERT.	VERTICAL
V.I.F.	VERIFY IN FIELD
VOL.	VOLUME
W.	WEST OR WIDE OR WATER
W/	WITH
WD.	WOOD
W.H.	WEEP HOLE
W.I.	WROUGHT IRON
W.M.	WATER METER
W/O	WITHOUT
WP.	WATERPROOF (ING)
WPJ.	WEAKEN PLANE JOINT
WT.	WEIGHT
W.W.F.	WOVEN WIRE FABRIC
W.W.M.	WELDED WIRE MESH
Y.D.	YARD DRAIN

NOTE:

SOME ABBREVIATIONS ON THE DRAWINGS MAY NOT HAVE PERIODS AS PART OF THE ABBREVIATION. DELETION OF PERIOD SHALL NOT ALTER MEANING.

DIGALERT
CALL 8-1-1 TOLL FREE
2 workings days before you dig

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED LANDSCAPE ARCHITECT STEPHEN ZUREK #5119 — 1-14-13 — EXP. 5-31-14 — STATE OF CALIFORNIA

PROJECT LANDSCAPE ARCHITECT

PLAN LS

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN
MULTI-USE ENHANCEMENT PROJECT
NOTES, ABBREVIATIONS, CONSTRUCTION & MATERIALS LEGEND

LS-1.2

FCC0001176 | PCA EF21507000 | SHEET 2 OF 27


WASHINGTON BLVD.
BY OTHERS
BY CONTRACTOR
+/- 6'
R/W
JOIN FLUSH,TYP.
18'-8"
10'
43'-3"
11'
±11'
27'-4"
REFERENCE POINT:
SET CHIS"+"IN BW
N 10051.9153
E 10004.5887
El: 6.406
PWFB1015-1102
REFERENCE POINT:
SET CHIS"+"IN FW
N 10289.0692
E 9995.4460
El: 5.885
PWFB1015-1102
REFERENCE POINT:
SET CHIS"+"IN GUT
N 10625.8025
E 9992.9822
El: 6.123
PWFB1015-1101
6
7
23
32
8
29
25
TYP.
7
TYP.
8
TYP.
29
25
B
LS-2.5
SECTION B - B,
REFER TO SHEET 18
(LS-2.6), DETAIL B.
SECTION B - B,
REFER TO SHEET 18
(LS-2.6), DETAIL B.
SANITARY SEWER
5:1
3:1
10:1
MATCHLINE AA - SEE NEXT SHEET
11
9
11
21
10
6
7
26
C
LS-2.5
D
32
10
12
8
29
23
BIOSWALE, REFER
TO PLAN D
SECTION D - D,
REFER TO SHEET 19
(LS-2.7), DETAIL D.
ADMIRALTY WAY
MATCHLINE BB - SEE NEXT SHEET
NORTH
0 10' 20' 40' 60'
GRAPHIC SCALE: 1"=20'

NOTES:

REFER TO SHEET LS-1.2 FOR CONSTRUCTION LEGEND AND NOTES

REFER TO SHEET LS-1.2 FOR CONCRETE AND MATERIALS FINISH LEGEND

REFER TO PLAN E FOR ELECTRICAL

DIGALERT
CALL 8-1-1 TOLL FREE
2 workings days before you dig

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED LANDSCAPE ARCHITECT STEPHEN ZUREK #5119 1-14-13 EXP. 5-31-14 STATE OF CALIFORNIA

PROJECT LANDSCAPE ARCHITECT

PLAN LS

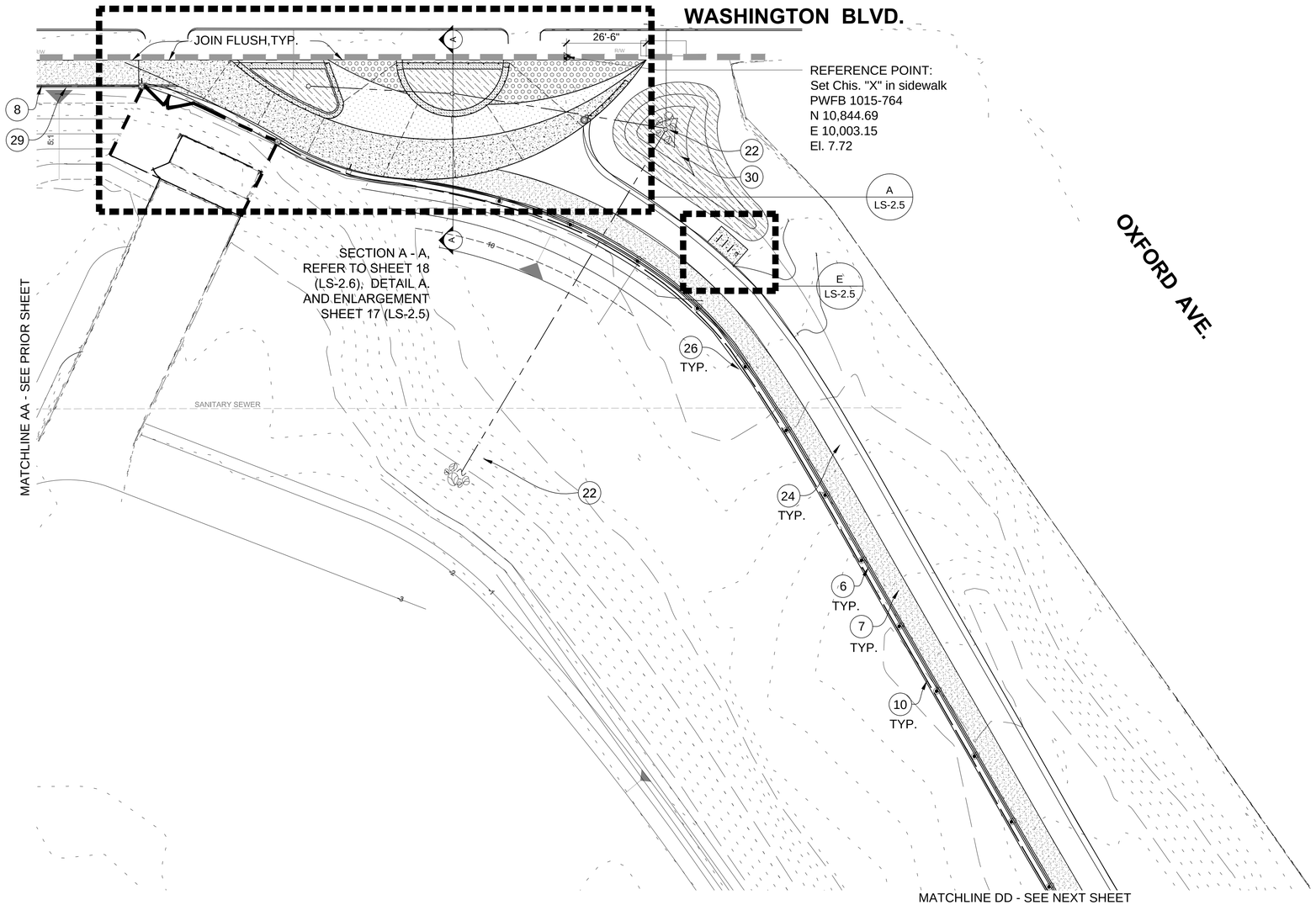
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN
MULTI-USE ENHANCEMENT PROJECT

CONSTRUCTION PLAN

LS-2.1

FCC0001176 | PCA EF21507000 | SHEET 3 OF 27

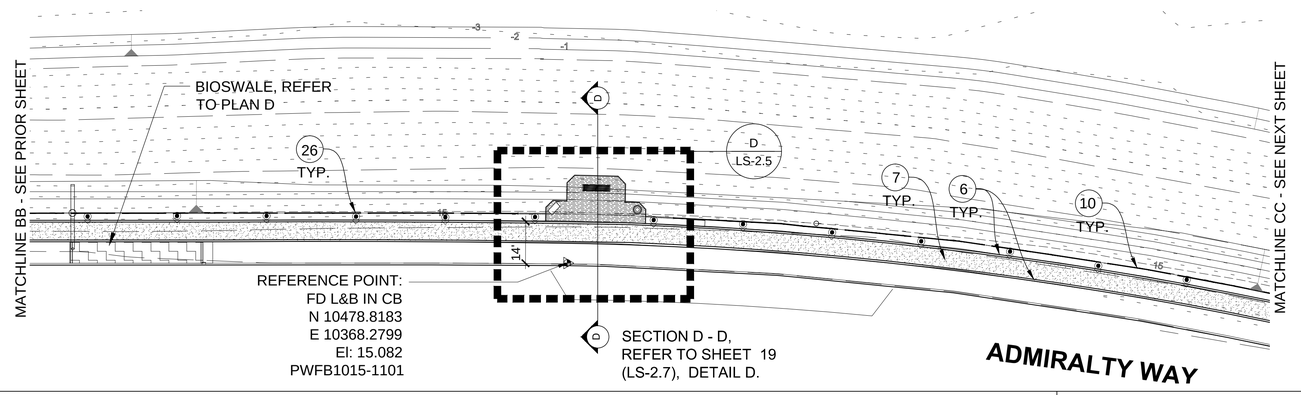


NOTES:

REFER TO SHEET LS-1.2 FOR CONSTRUCTION LEGEND AND NOTES

REFER TO SHEET LS-1.2 FOR CONCRETE AND MATERIALS FINISH LEGEND

REFER TO PLAN E FOR ELECTRICAL



NORTH

GRAPHIC SCALE: 1"=20'

DIGALERT
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2 workings days before you dig

PLAN LS

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED LANDSCAPE ARCHITECT STEPHEN ZUREK 5217 STATE OF CALIFORNIA 1-14-13

PROJECT LANDSCAPE ARCHITECT

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN
MULTI-USE ENHANCEMENT PROJECT

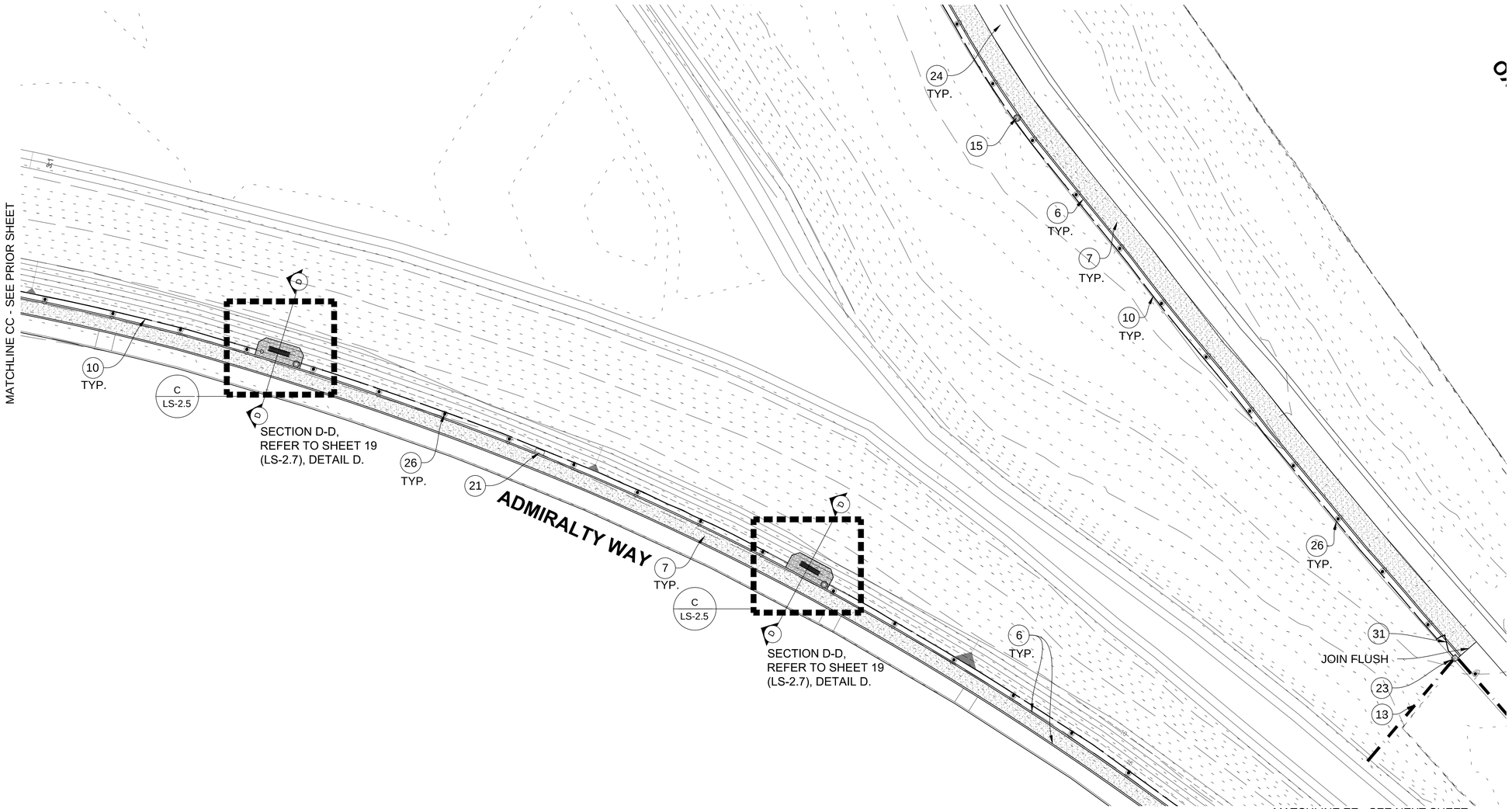
CONSTRUCTION PLAN

LS-2.2

FCC0001176	PCA EF21507000		SHEET 4 OF 27

MATCHLINE DD - SEE PRIOR SHEET

MATCHLINE CC - SEE PRIOR SHEET



MATCHLINE EE - SEE NEXT SHEET

NOTES:

REFER TO SHEET LS-1.2 FOR CONSTRUCTION LEGEND AND NOTES

REFER TO SHEET LS-1.2 FOR CONCRETE AND MATERIALS FINISH LEGEND

REFER TO PLAN E FOR ELECTRICAL

NORTH

0 10' 20' 40' 60'

GRAPHIC SCALE: 1"=20'

DIGALERT

CALL 8-1-1 TOLL FREE
2 workings days before you dig

PLAN LS

DATE	MK	DESCRIPTION
REVISIONS		

REGISTERED LANDSCAPE ARCHITECT
STEPHEN ZUREK 2571
1-14-13
STATE OF CALIFORNIA

PROJECT LANDSCAPE ARCHITECT

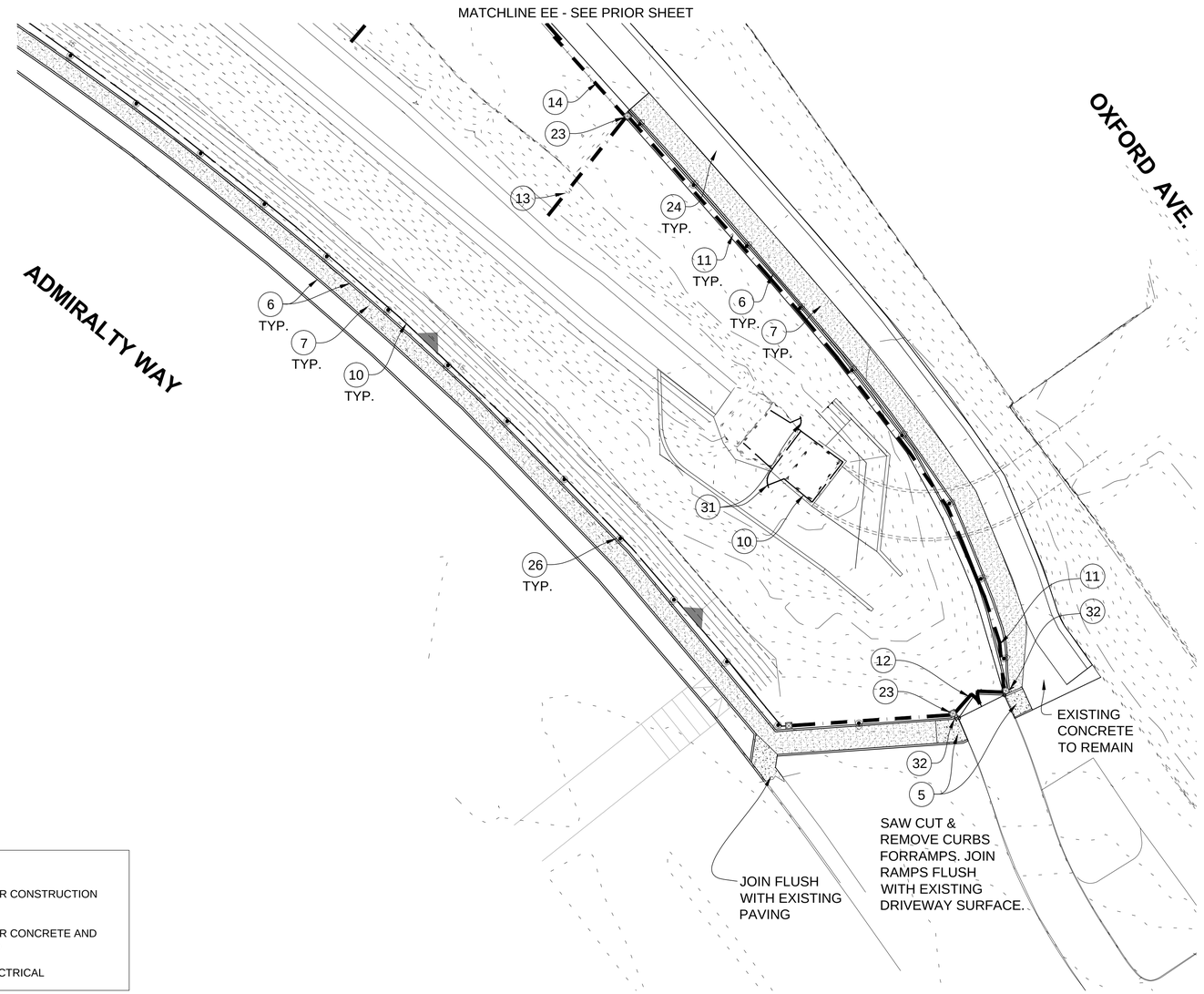
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN
MULTI-USE ENHANCEMENT PROJECT

CONSTRUCTION PLAN

LS-2.3

FCC0001176	PCA EF21507000		SHEET 5 OF 27



NOTES:

REFER TO SHEET LS-1.2 FOR CONSTRUCTION LEGEND AND NOTES

REFER TO SHEET LS-1.2 FOR CONCRETE AND MATERIALS FINISH LEGEND

REFER TO PLAN E FOR ELECTRICAL

NORTH

0 10' 20' 40' 60'

GRAPHIC SCALE: 1"=20'

PLAN LS

DIGALERT

CALL 8-1-1 TOLL FREE

2 workings days before you dig

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED LANDSCAPE ARCHITECT STEPHEN ZUREK 3317 1-14-13 RENEWAL 8/31/14 STATE OF CALIFORNIA

PROJECT LANDSCAPE ARCHITECT

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN
MULTI-USE ENHANCEMENT PROJECT

CONSTRUCTION PLAN

LS-2.4

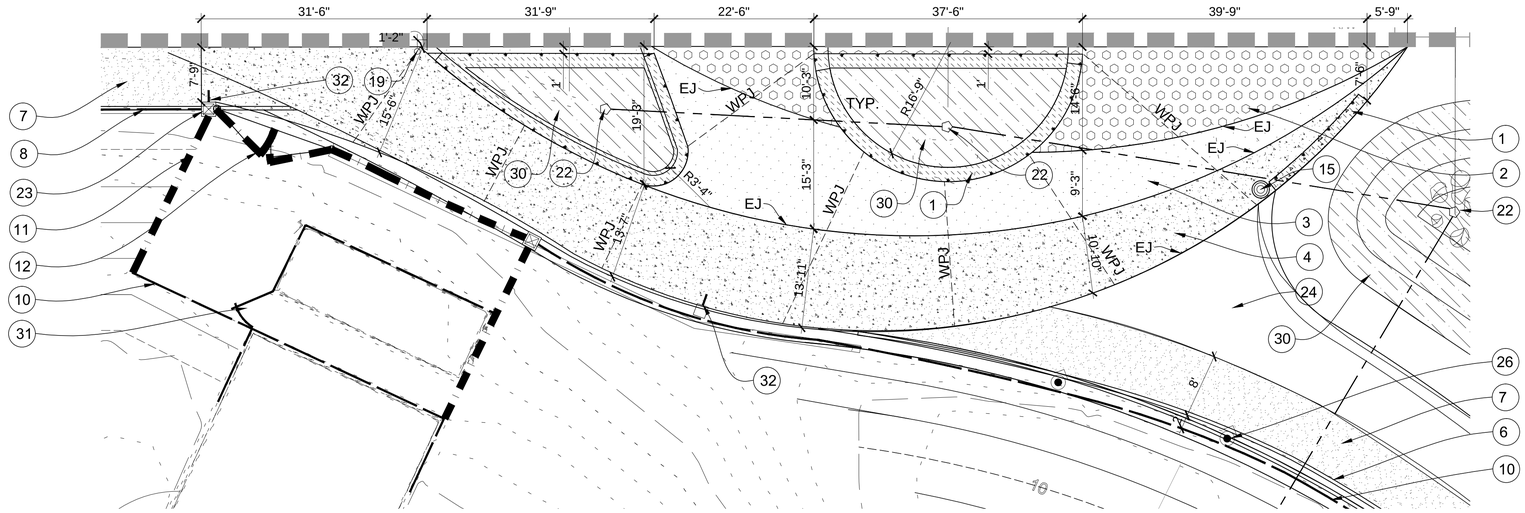
FCC0001176	PCA EF21507000		SHEET 6 OF 27

NOTES:

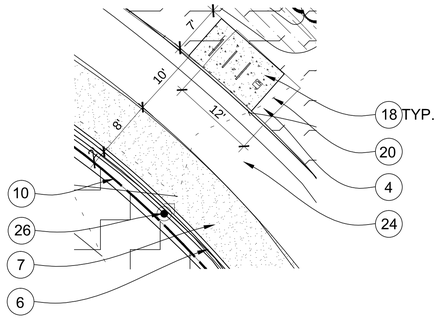
REFER TO SHEET LS-1.2 FOR CONSTRUCTION LEGEND AND NOTES

REFER TO SHEET LS-1.2 FOR CONCRETE AND MATERIALS FINISH LEGEND

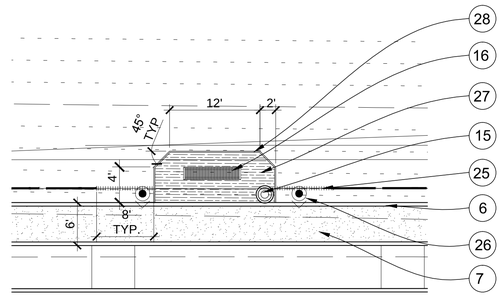
REFER TO PLAN E FOR ELECTRICAL



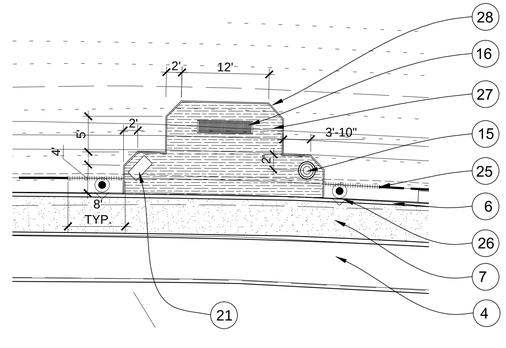
Ⓐ ENLARGEMENT S: 1" = 10'



Ⓔ ENLARGEMENT S: 1" = 10'

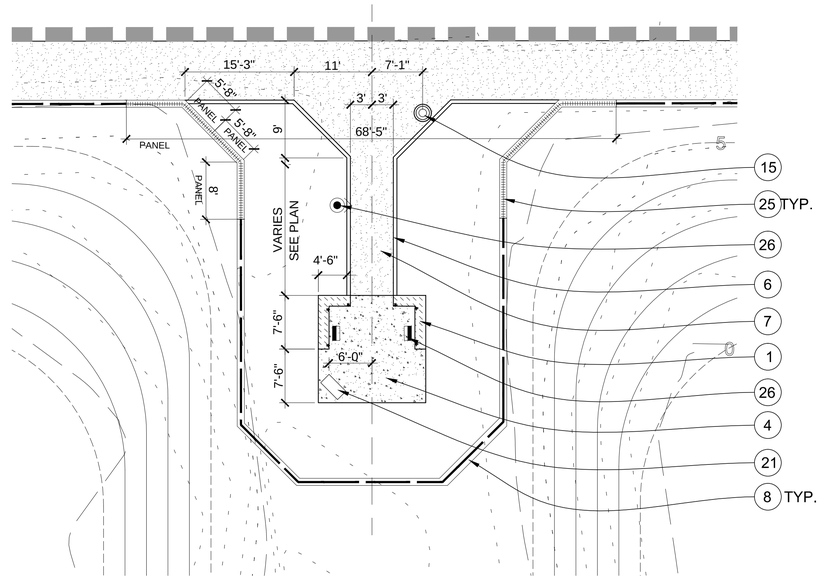


Ⓒ ENLARGEMENT S: 1" = 10'



Ⓓ ENLARGEMENT S: 1" = 10'

Ⓕ S: 1" = 10'



Ⓑ ENLARGEMENT S: 1" = 10' PLAN LS

DIGALERT
CALL 8-1-1 TOLL FREE
2 workings days before you dig

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED LANDSCAPE ARCHITECT STEPHEN ZUREK 4371 1-14-13 STATE OF CALIFORNIA

PROJECT LANDSCAPE ARCHITECT

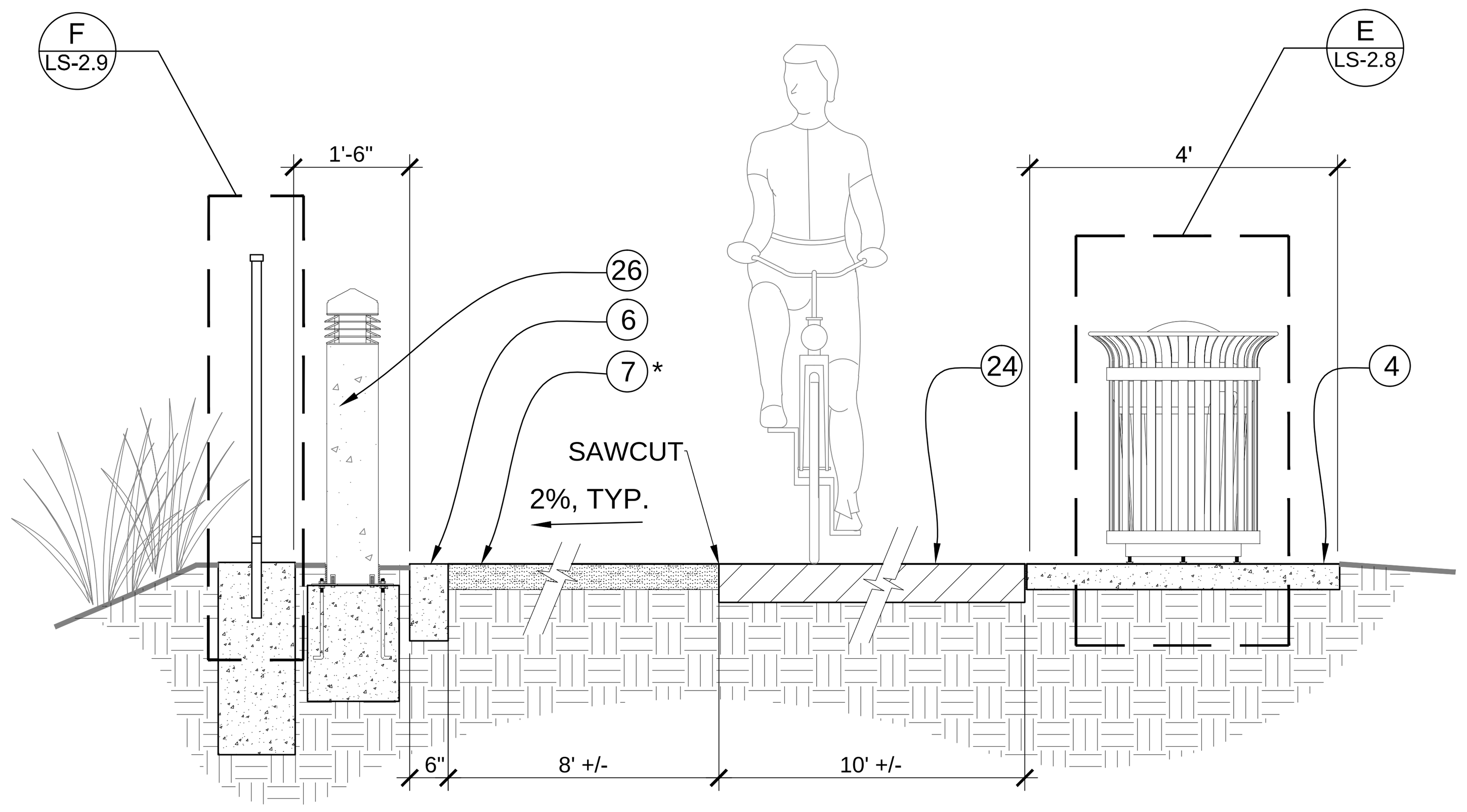
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN
MULTI-USE ENHANCEMENT PROJECT

ENLARGEMENTS

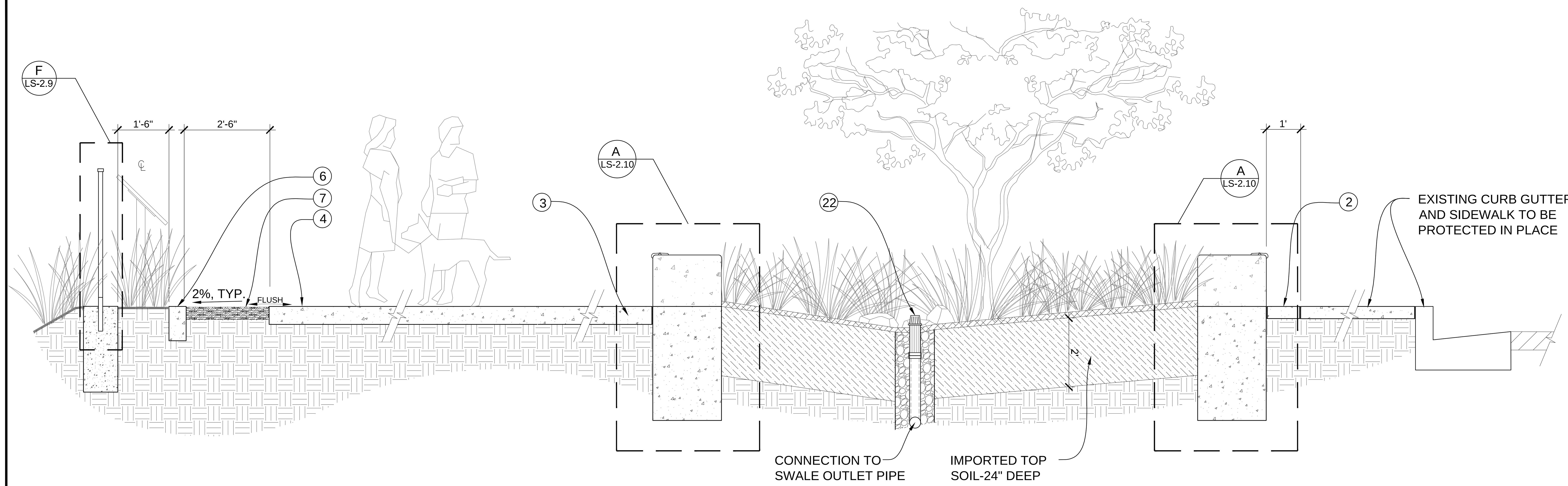
LS-2.5

FCC0001176 | PCA EF21507000 | SHEET 7 OF 27



SAWCUT AND REMOVE EXISTING AC PAVEMENT TO ACCOMMODATE NEW D.G.
NOTE: REFER TO PLAN SP FOR SIGNING AND STRIPING

Ⓒ SECTION C-C — NTS



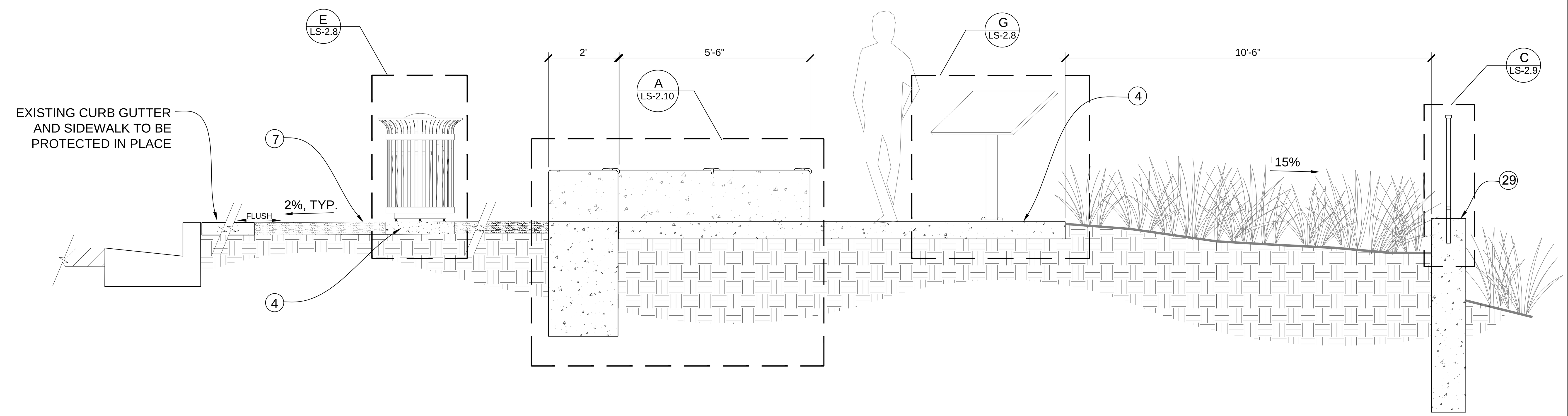
Ⓐ SECTION A-A — NTS

NOTES:

REFER TO SHEET LS-1.2 FOR CONSTRUCTION LEGEND AND NOTES

REFER TO SHEET LS-1.2 FOR CONCRETE AND MATERIALS FINISH LEGEND

REFER TO PLAN E FOR ELECTRICAL



Ⓑ SECTION B-B — NTS — PLAN LS

DIGALERT
CALL 8-1-1 TOLL FREE
2 workings days before you dig

DATE	MK	DESCRIPTION
REVISIONS		

REGISTERED LANDSCAPE ARCHITECT — STEPHEN ZUREK #5119 — 1-14-13 — EXP. 5-31-14 — STATE OF CALIFORNIA
PROJECT LANDSCAPE ARCHITECT

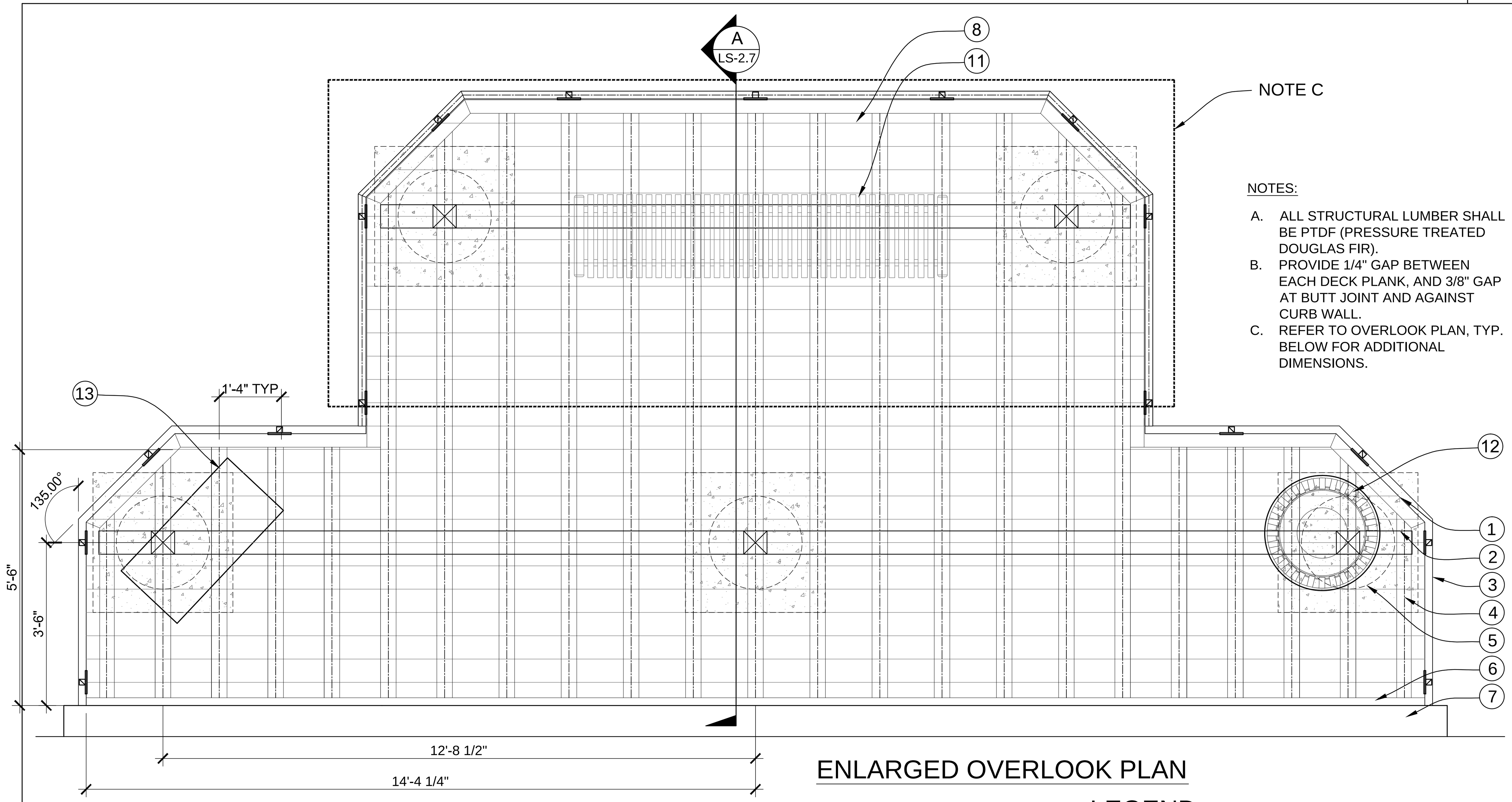
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN MULTI-USE ENHANCEMENT PROJECT

SECTIONS

LS-2.6

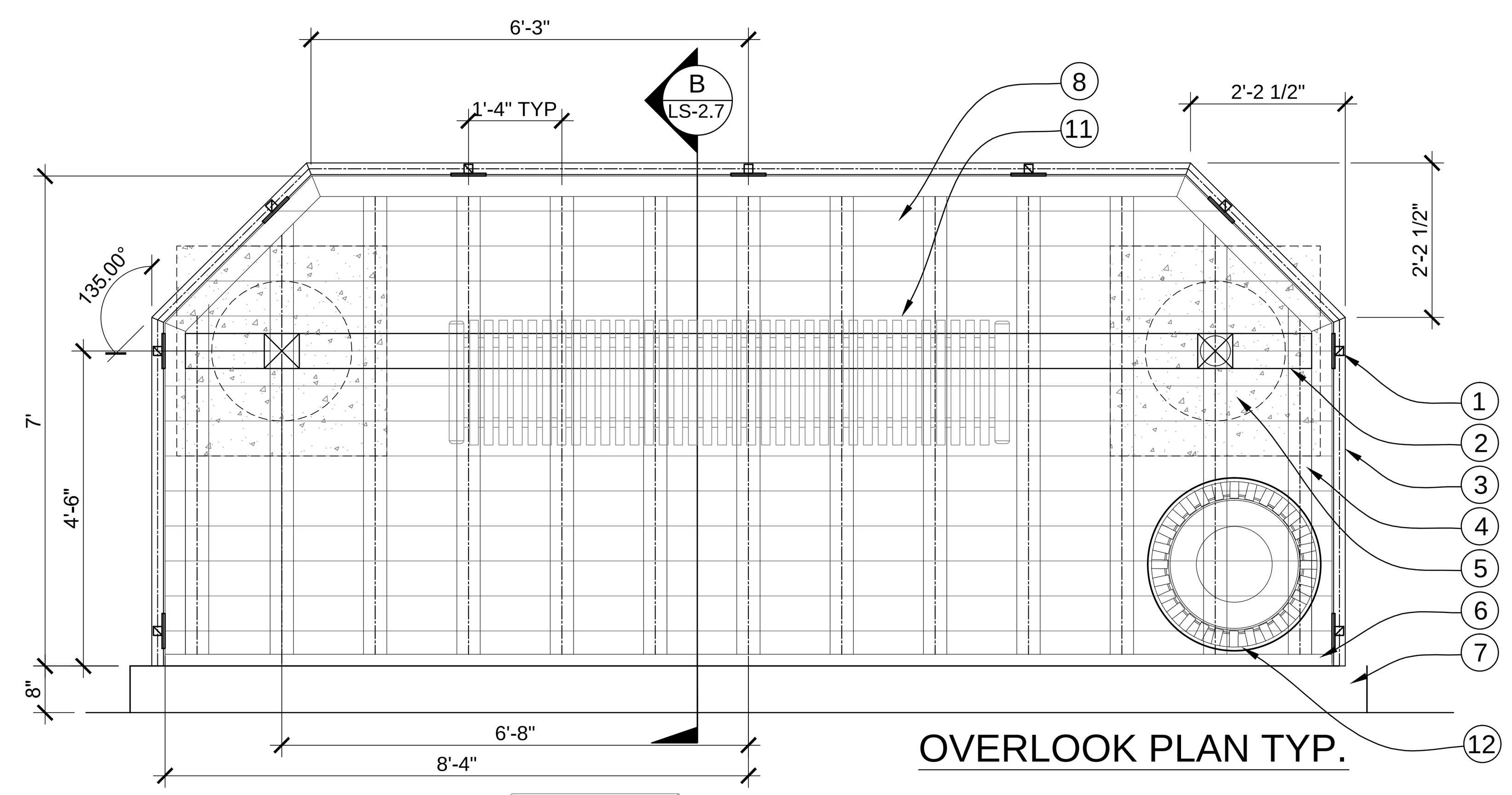
FCC0001176 | PCA EF21507000 | SHEET 8 OF 27



NOTES:

A. ALL STRUCTURAL LUMBER SHALL BE PTDF (PRESSURE TREATED DOUGLAS FIR).
B. PROVIDE 1/4" GAP BETWEEN EACH DECK PLANK, AND 3/8" GAP AT BUTT JOINT AND AGAINST CURB WALL.
C. REFER TO OVERLOOK PLAN, TYP. BELOW FOR ADDITIONAL DIMENSIONS.

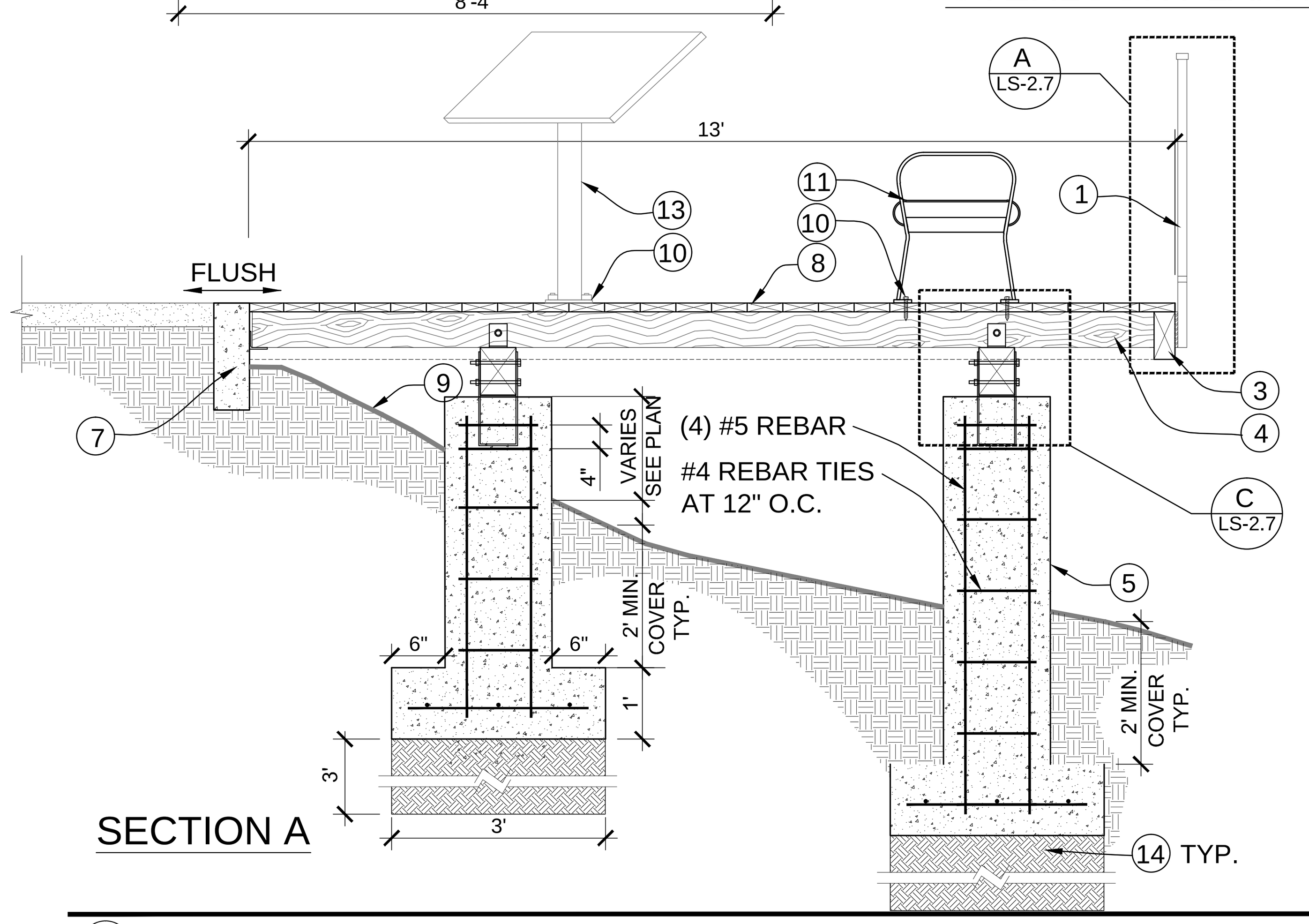
ENLARGED OVERLOOK PLAN



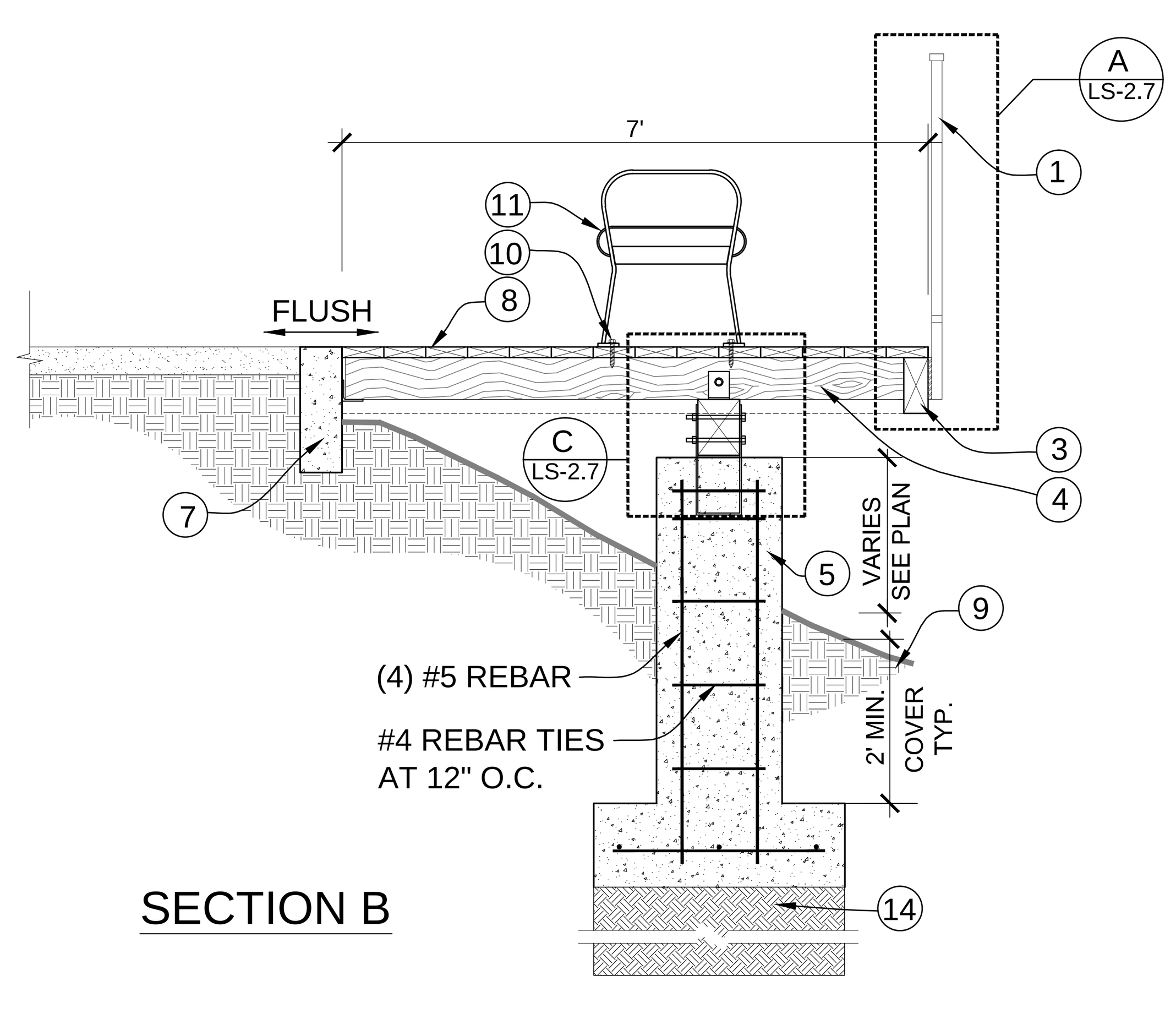
OVERLOOK PLAN TYP.

LEGEND:

1. TUBE STEEL GUARDRAIL, SEE DETAIL A, THIS SHEET
2. 8" x 8" PTDF BEAM, TYP.
3. 4" x 8" PTDF FASCIA, TYP. PAINT W/ SEMI GLOSS, PANTONE COLOR 553C
4. 4" x 6" PTDF JOIST, TYP.
5. 24" DIAMETER CONCRETE PIER AND 3' x 3' x 1' CONCRETE FOOTING WITH REINFORCEMENT (520-C-2500), TYP.
6. 2" x 8" PTDF HEADER ANCHORED TO CONCRETE CURB WALL WITH ANCHOR BOLTS AT 32" O.C., TYP. SEE DETAIL E, THIS SHEET.
7. DECK CURB WALL, SEE DETAIL E, THIS SHEET.
8. 2" x 6" COMPOSITE WOOD DECKING, TYP. REFER TO MATERIALS LEGEND (SHEET LS-1.2) FOR MAKE/MODEL INFO.
9. FINISHED GRADE
10. VANDAL PROOF ANCHOR BOLT SUPPLIED BY BENCH/ SIGN MANUFACTURER OR AGENCY APPROVED EQUAL
11. 8' BACKLESS BENCH. REFER TO MATERIALS LEGEND (SHEET LS-1.2) FOR MAKE/MODEL INFO.
12. LITTER RECEPTACLE. REFER TO MATERIALS LEGEND (SHEET LS-1.2) FOR MAKE/MODEL INFO.
13. INTERPRETIVE SIGN. SEE SHEET LS-2.8, DETAIL G.
14. 3' DEPTH OF COMPACTED FILL. 90% RELATIVE COMPACTION, TYP.



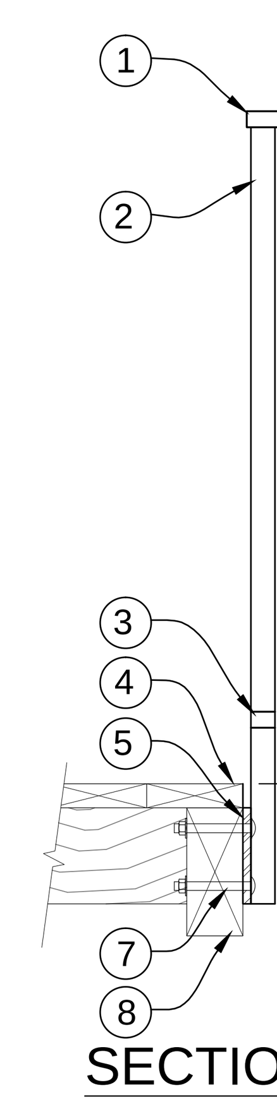
SECTION A



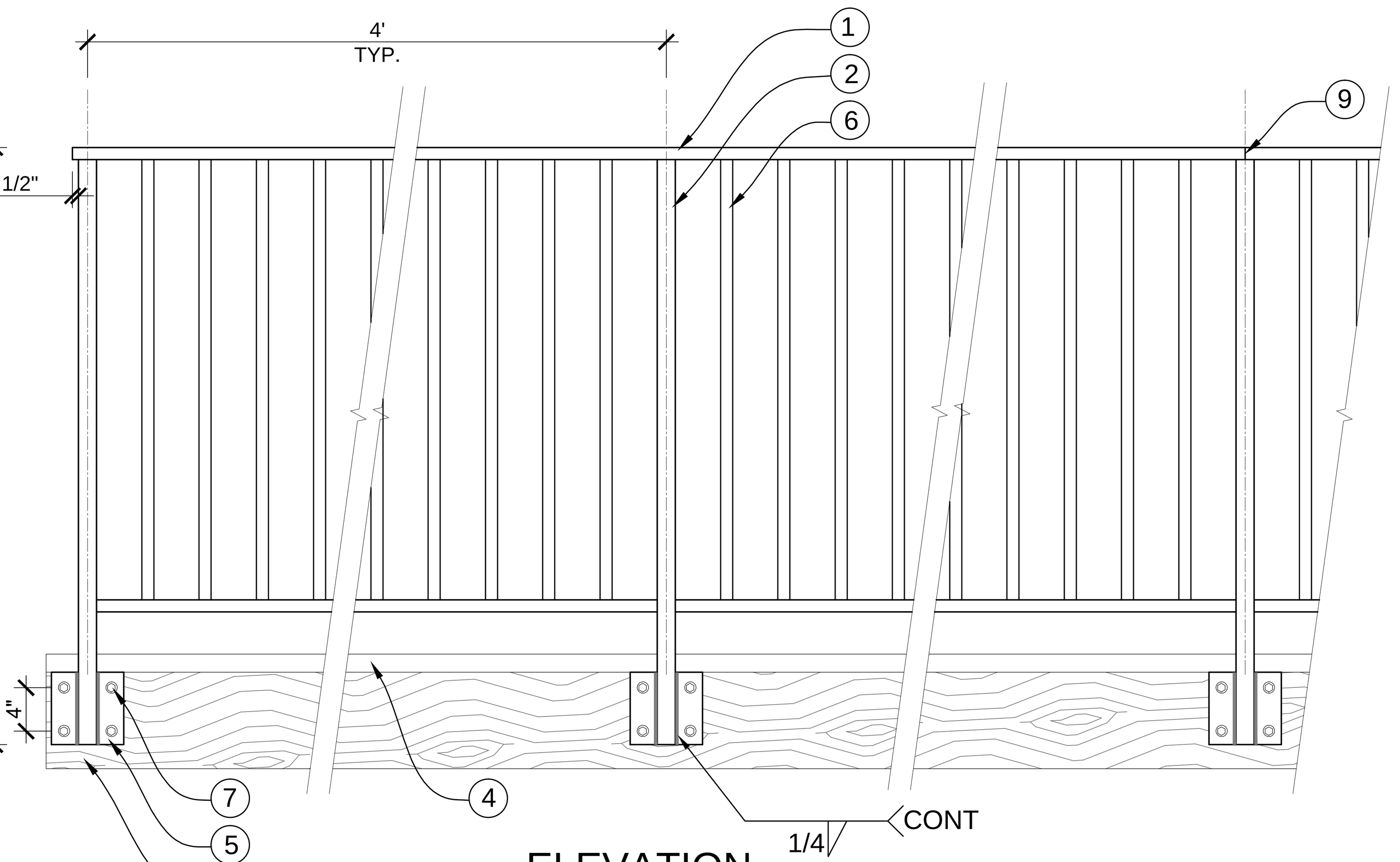
SECTION B

D COMPOSITE WOOD DECKING

S: 1/2" = 1'-0"



SECTION



ELEVATION

LEGEND:

1. 2"W x 1"H TUBE STEEL TOPRAIL, CAP ALL ENDS, TYP.
2. 1-1/2" x 1-1/2" TUBE STEEL POST, TYP.
3. 1-1/2"W x 1"H TUBE STEEL BOTTOM RAIL, TYP.
4. COMPOSITE WOOD DECKING, TYP. SEE DETAIL D, THIS SHEET.
5. 6" x 6" x 1/4" THICK STEEL PLATE, TYP.
6. 1" x 1" TUBE STEEL PICKETS, 4" O.C., TYP.
7. 1/2" x 5" GALVANIZED CARRIAGE BOLTS AND WASHER, 4 PER PLATE, TYP.
8. 4" x 8" PTDF FASCIA BOARD, TYP.
9. WELD SHUT MITRE JOINT, TYP.

NOTES:

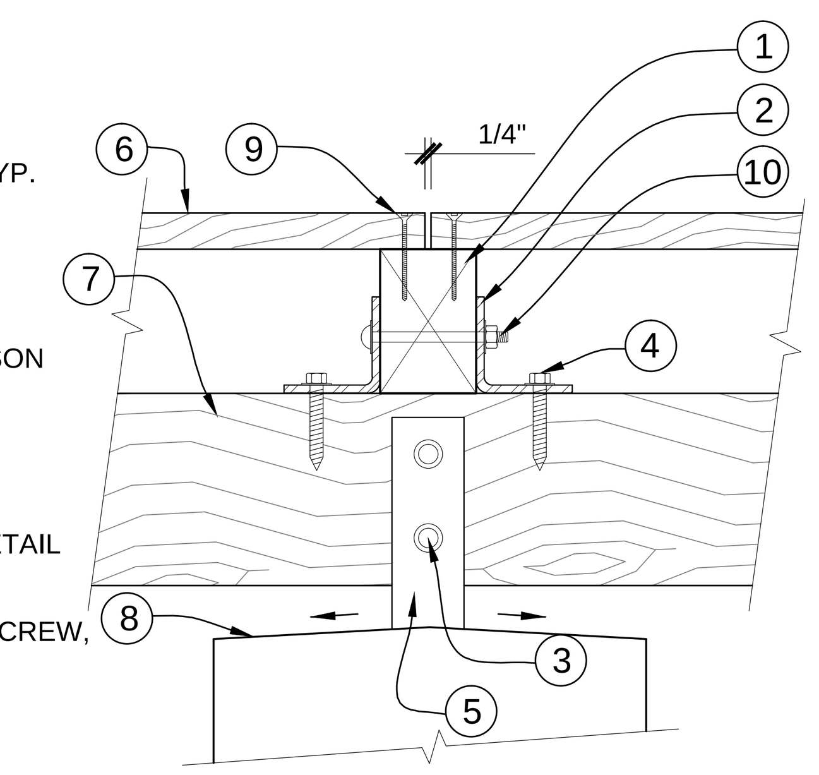
A. ALL TUBE STEEL SHALL HAVE A MINIMUM WALL GAUGE OF 11.
B. ALL STEEL MEMBERS SHALL RECEIVE TWO COATS OF PRIMER AND POWDER COAT FINISH, PANTONE COLOR 553 C, DARK GREEN.

A DECK RAILING

S: 1" = 1'-0"

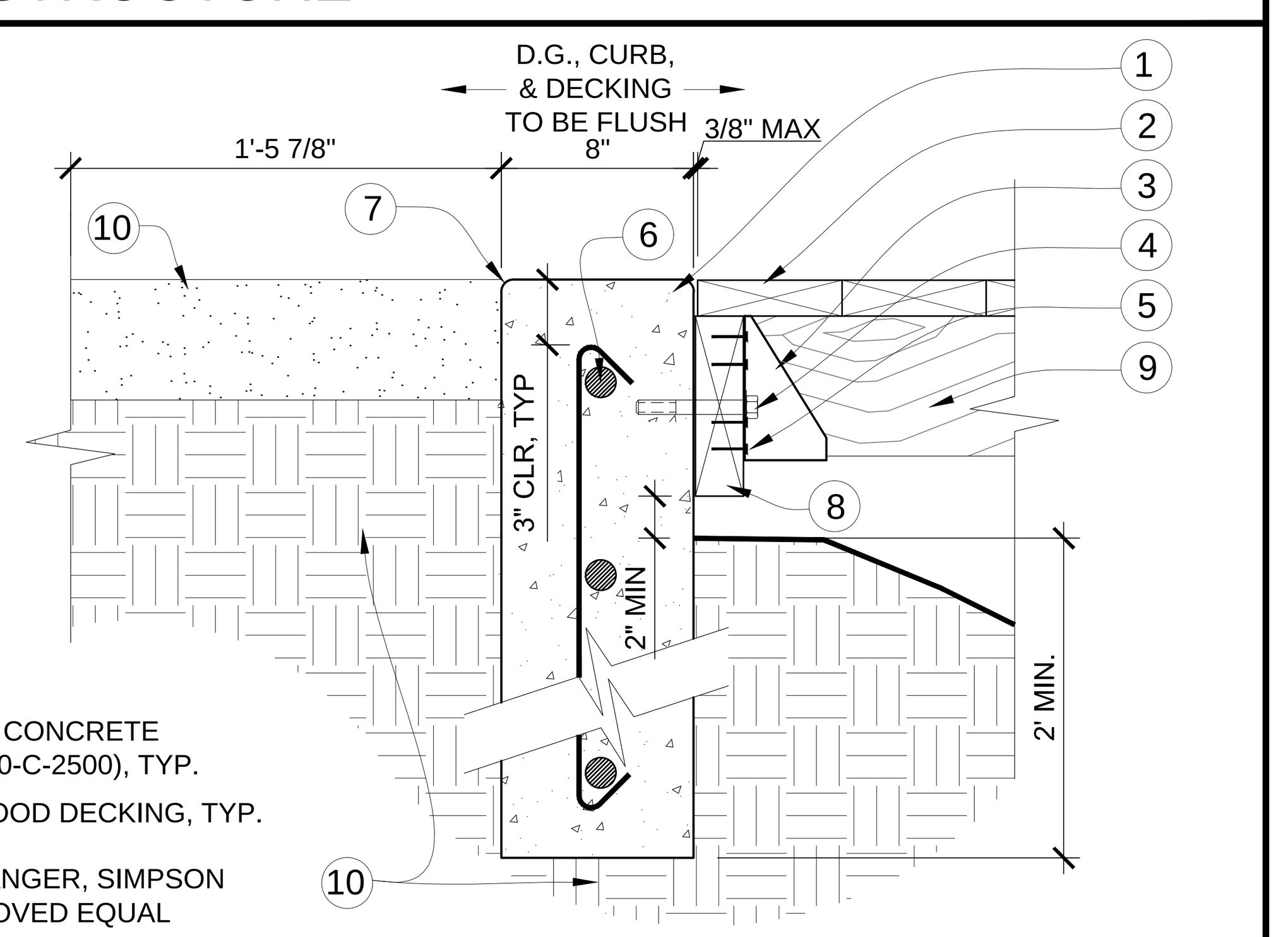
LEGEND:

1. 4" x 6" PTDF JOIST, TYP.
2. 4" x 4" 12 GA. GALVANIZED STEEL ANGLE, TYP.
3. (2) 3/4" GALVANIZED MACHINE BOLT, TYP.
4. 1/2" x 4" GALVANIZED LAG BOLT WITH WASHER, TYP.
5. GALVANIZED STEEL BEAM BRACKET - SIMPSON CB88 OR AGENCY APPROVED EQUAL, TYP.
6. 2" x 6" COMPOSITE WOOD DECKING, TYP.
7. 8" x 8" PTDF BEAM, TYP.
8. 24" DIAMETER CONCRETE FOOTING, SEE DETAIL D, THIS SHEET. SLOPE TOP TO DRAIN, TYP.
9. 3" STAINLESS STEEL SQUARE HEAD DECK SCREW, 2 SCREWS PER ATTACHMENT POINT, TYP.
10. 1/2" GALVANIZED MACHINE BOLT, TYP.



C DECK STRUCTURE

S: 1-1/2" = 1'-0"



LEGEND:

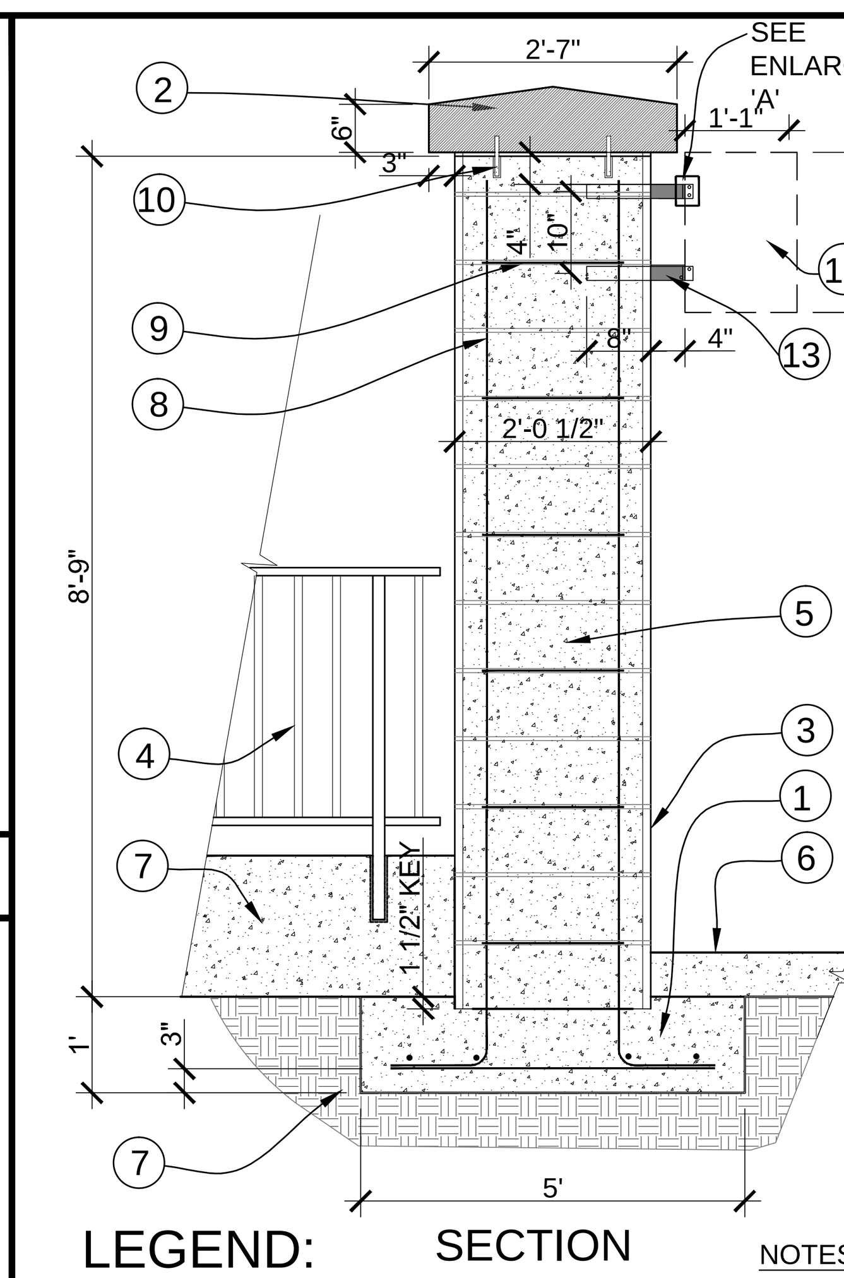
1. CAST IN PLACE CONCRETE CURB WALL (520-C-2500), TYP.
2. COMPOSITE WOOD DECKING, TYP.
3. 4" x 6" JOIST HANGER, SIMPSON HU46 OR APPROVED EQUAL
4. 1/2" DIAMETER x 4-1/2" CONCRETE EXPANSION ANCHOR @ 32" O.C., TYP.
5. 1-1/4" GALV. NAILS, TYP.
6. REBAR: 3 - #5 TIES: #4 AT 12" O.C. IN CENTER OF WALL
7. 1/2" RADIUS, TYP.
8. 2" x 8" PTDF HEADER, TYP.
9. 4" x 6" PTDF WOOD BEAM, TYP.
10. ADJACENT DECOMPOSED GRANITE SURFACING
11. 90% RELATIVE COMPACTION, TYP.

NOTE:

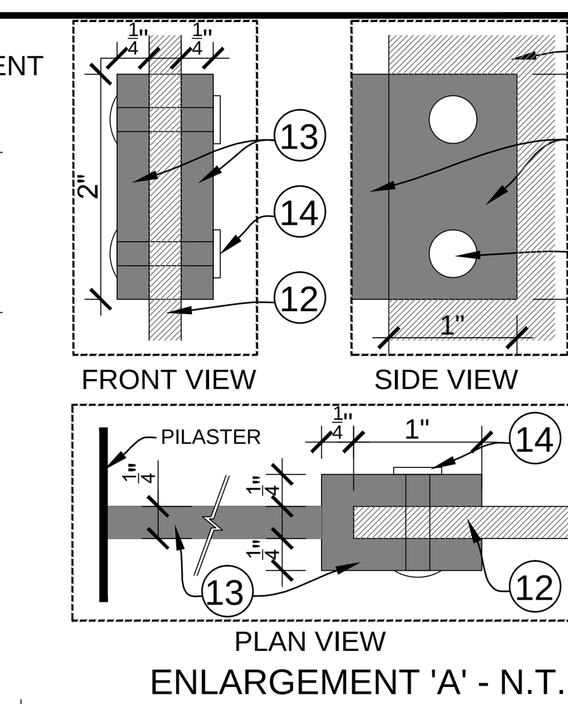
TOP OF DECK SHALL BE FLUSH WITH TOP OF CURB WALL

E DECK CURB WALL

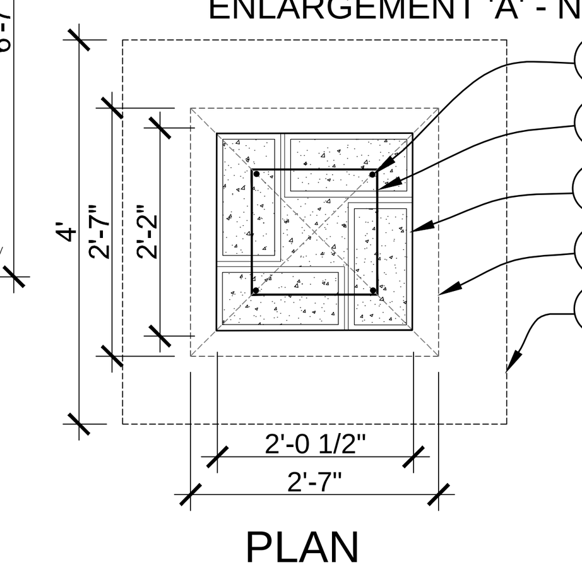
S: 1-1/2" = 1'-0"



SECTION



ENLARGEMENT 'A' - N.T.S.



PLAN

LEGEND:

1. CONCRETE FOOTING (520-6-2500)
2. PRECAST CONCRETE CAP
3. 8" x 8" x 16" SPLIT FACE BLOCK. GROUT ALL CELLS SOLID. REFER TO MATERIALS LEGEND ON SHEET LS-1.2.
4. VARIES - SEE PLAN. DETAIL SHOWS 3' TUBULAR STEEL FENCE, SEE SHEET LS-2.9, DETAIL C.
5. MORTAR SHALL BE SPEC MIX PRE-BLENDED MASONRY MORTAR, TYPE S, NATURAL GREY, WITH CONCAVE JOINTS, BY EX MIX, INC., OR APPROVED EQUAL.
6. ADJACENT PAVING, SEE PLAN.
7. VARIES - SEE PLAN. DETAIL SHOWS RETAINING WALL, SEE TYPICAL WALKING TRAIL CROSS SECTION, SHEET 6.
8. #5 REBAR, VERTICAL. ALTERNATE BENDS INTO FOOTING. 1 PER CORNER BLOCK AND 1 CENTERED, TYPICAL.
9. #3 TIES AT 16" O.C.
10. 3/4" DIA. x 3" DEEP STAINLESS STEEL THREADED PINS FILLED WITH COVERT OPERATION BRAND EXPOXY ICBO 4846 OR APPROVED EQUAL. INSTALL 4 AT EACH PILASTER CAP.
11. COMPACTED SUBGRADE. 90% RELATIVE COMPACTION, TYP.
12. SIGNAGE PER PLAN. SEE SIGNAGE DETAILS SHEET LS-2.11.
13. $\frac{1}{4}$" THICK X 2' WIDE ALUMINUM BAR WITH SLEEVE TO RECEIVE SIGNAGE PANEL.
14. $\frac{3}{16}$ RIVETS WITH EQUAL DRIVEN HEAD DIAMETER.

NOTES:

A. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR AGENCY APPROVAL PRIOR TO CONSTRUCTION.

S: 1/2" = 1'-0"

B PILASTER, SPLITFACE CMU w/ CAP

PLAN LS

DIGALERT

CALL 8-1-1 TOLL FREE
2 workings days before you dig

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED LANDSCAPE ARCHITECT STEPHEN ZUREK #5119 — 1-14-13 — EXP. 5-31-14 — STATE OF CALIFORNIA

PROJECT LANDSCAPE ARCHITECT

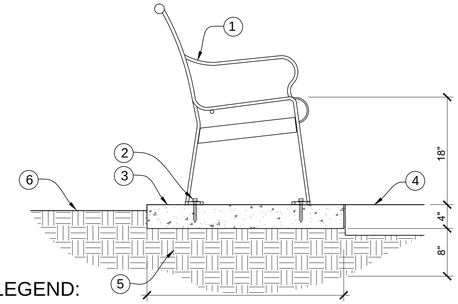
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN MULTI-USE ENHANCEMENT PROJECT

CONSTRUCTION DETAILS

LS-2.7

FCC0001176 | PCA EF21507000 | SHEET 9 OF 27



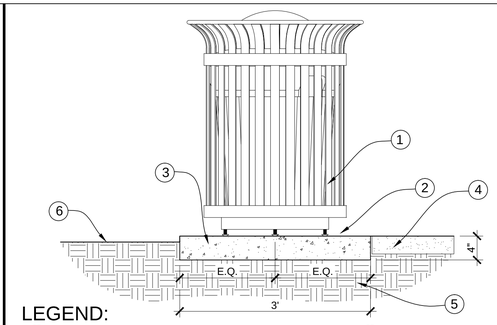
LEGEND:

1. 8' BENCH WITH CENTER ARMREST. REFER TO MATERIALS LEGEND (SHEET LS-1.2) FOR MAKE/MODEL INFO.
2. VANDAL PROOF ANCHOR BOLT SUPPLIED BY BENCH MANUFACTURER OR AGENCY APPROVED EQUAL
3. CONCRETE SLAB. REFER TO PLAN AND CONCRETE AND MATERIALS FINISH LEGEND.
4. ADJACENT FINISH GRADE
5. COMPACT SUBGRADE, 90% RELATIVE COMPACTION
6. FINISH GRADE OF ADJACENT PLANTING AREA

NOTE:

A. CONNECT TO DECKING PER MANUFACTURER'S RECOMMENDATIONS.

(H) BENCH — S: 1" = 1'-0"



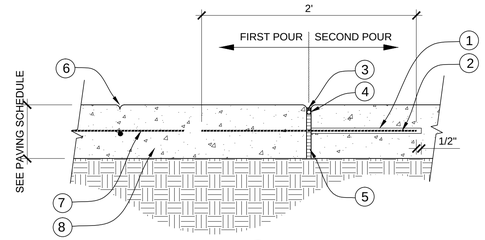
LEGEND:

1. LITTER RECEPTACLE. REFER TO MATERIALS LEGEND (SHEET LS-1.2) FOR MAKE/MODEL INFO. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
2. ATTACH TO SLAB OR DECKING PER MANUFACTURER'S INSTRUCTIONS.
3. CONCRETE SLAB. REFER TO PLAN AND CONCRETE AND MATERIALS FINISH LEGEND.
4. ADJACENT SURFACING
5. COMPACT SUBGRADE, 90% RELATIVE COMPACTION
6. FINISH GRADE OF ADJACENT PLANTING AREA

NOTE:

A. CONNECT TO DECKING PER MANUFACTURER'S RECOMMENDATIONS.

(E) LITTER RECEPTACLE — S: 1" = 1'-0"



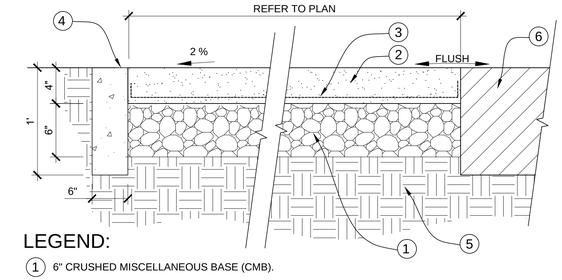
LEGEND:

1. PLASTIC DOWEL SLEEVE
2. 1/2" DIA. SMOOTH DOWEL @ 16" O.C.
3. JOINT SEALANT
4. FOAM BACKER
5. PRE-FORMED EXPANSION JOINT
6. 1/2" RADIUS WEAKENED PLANE JOINT
7. #4 REBAR @ 16" O.C. BOTH WAYS
8. CONCRETE PAVING

NOTES:

A. ALIGN DOWEL WITH REINFORCEMENT BAR WHERE POSSIBLE
B. WEAKENED PLANE JOINTS SHALL BE CONSTRUCTUCTED AT REGULAR INTERVALS NOT EXCEEDING 6' IN WALKS AND 10' IN CURBS.
C. PROVIDE EXPANSION JOINTS AT BCR AND ECR IN CURB, GUTTER, SIDEWALK, AND AROUND UTILITY POLES AND CONCRETE FOUNDATIONS LOCATED IN SIDEWALK AREAS.

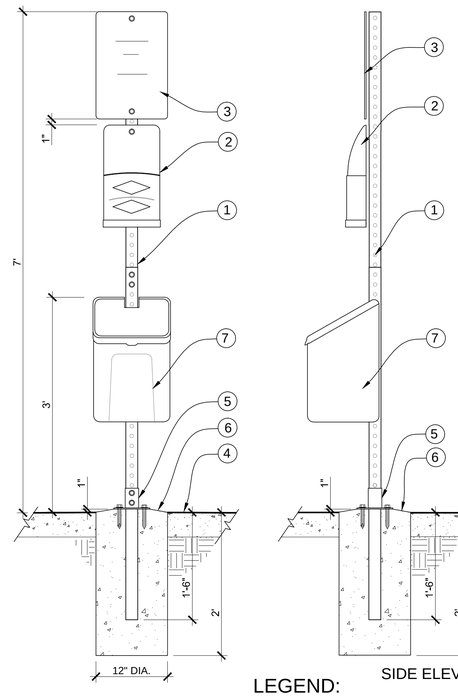
(C) CONCRETE JOINTS — NTS



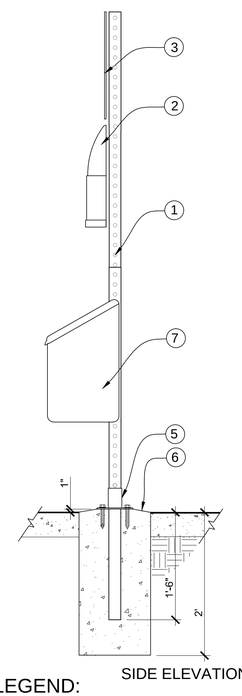
LEGEND:

1. 6" CRUSHED MISCELLANEOUS BASE (CMB).
2. DECOMPOSED GRANITE. FINISH GRADE SHALL BE FLUSH WITH ADJACENT PAVEMENT SURFACE. BINDER/STABILIZER TO BE ADDED PER SPECIAL PROVISIONS. SLOPE TO DRAIN AT 2%.
3. WEED BARRIER, SEE SPECIAL PROVISIONS.
4. CONCRETE HEADER, SEE DETAIL D, THIS SHEET. OMIT HEADER WHERE DECOMPOSED GRANITE ABUTS RETAINING WALL, SEE PLAN.
5. COMPACT SUBGRADE, 90% RELATIVE COMPACTION.
6. ADJACENT PAVEMENT.

(A) DECOMPOSED GRANITE w/ STABLIZER — S: 1-1/2" = 1'-0"



FRONT ELEVATION



SIDE ELEVATION

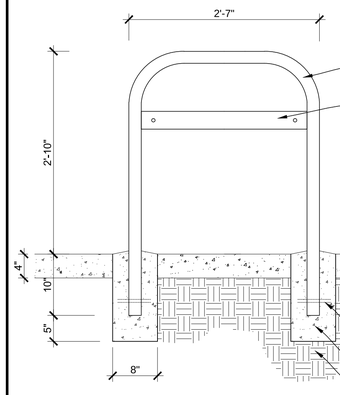
NOTES:

A. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL
B. REFER TO MANUFACTURER'S SPECIFICATIONS FOR INSTALLATION.

LEGEND:

1. DOGIPOT 2"X2" PLASTIC POLYETHYLENE GREEN TELESCOPING POST, BY BELSON OUTDOORS OR APPROVED EQUAL. MODEL # DP-1010
2. BAG DISPENSER, MODEL # DP-1010, BY BELSON OUTDOORS OR APPROVED EQUAL.
3. ON-LEASH SIGNAGE, SEE SHEET LS-2.11
4. PCC. REFER TO PLAN AND MATERIALS LEGEND.
5. GALVANIZED POST BASE. SECURE WITH $\frac{1}{2}$" DIA. X 3 $\frac{1}{2}$" LONG CARRIAGE BOLTS. MODEL # DP-1306 BY BELSON OUTDOORS OR APPROVED EQUAL.
6. 12" DIAMETER PCC FOOTING, SET TOP OF FOOTING 1" ABOVE F.G.
7. 10 GALLON PLASTIC GREEN WASTE RECEPTACLE, MODEL #DP-1010, BY BELSON OUTDOORS OR APPROVED EQUAL.

(I) PET WASTE STATION — S: 1" = 1'-0"



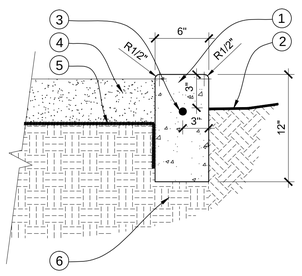
LEGEND:

1. 2" SQUARE TUBING, POWDER COATED FINISH. REFER TO MATERIALS LEGEND (SHEET LS-1.2) FOR MAKE/MODEL INFO.
2. $\frac{3}{8}$" x 3" LEAN BAR
3. CONCRETE SLAB. REFER TO PLAN AND MATERIALS AND FINISH LEGEND.
4. $\frac{3}{8}$" ANCHOR ROD
5. CONCRETE (560-C-3250) FOOTING
6. COMPACTED SUBGRADE, 90% RELATIVE COMPACTION

NOTE:

1. INSTALL RACKS 30" APART, TYPICAL, AND CENTER ON CONCRETE SLAB.

(F) BICYCLE U SHAPE RACK w/ LEANER BAR — S: 1" = 1'-0"

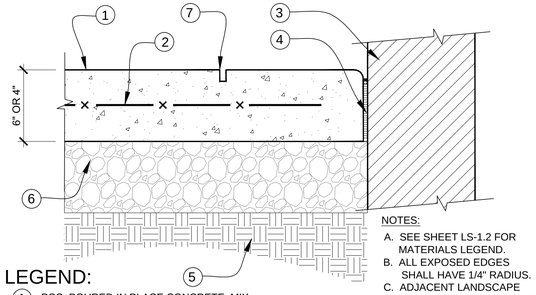


LEGEND:

1. CONCRETE HEADER (520-C-2500)
2. FINISHED GRADE TO BE 3" BELOW TOP OF HEADER, TYPICAL
3. #4 REBAR
4. DECOMPOSED GRANITE, SEE DETAIL A THIS SHEET.
5. WEED BARRIER, SEE SPECIAL PROVISIONS.
6. COMPACT SUBGRADE, 90% RELATIVE COMPACTION

NOTE:
PROVIDE EXPANSION JOINT EVERY 15' AND WEAKENED PLANE JOINT EVERY 7.5', TYPICAL

(D) CONCRETE HEADER — S: 1-1/2" = 1'-0"



LEGEND:

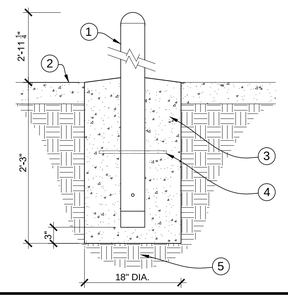
1. PCC, POURED IN PLACE CONCRETE, MIX 520-C-2500. REFER TO CONCRETE & MATERIALS FINISH LEGEND.
2. #3 REBAR @ 18" O.C. BOTH WAYS. CENTERED IN CONCRETE.
3. CONCRETE WALL OR ADJACENT PAVING. SEE PLAN.
4. EXPANSION JOINT (EJ), 1/2" THICK ASPHALT IMPREGNATED FIBERBOARD WITH BACKER ROD AND JOINT SEALANT. EJ AS SHOWN ON PLANS AND/OR BETWEEN ADJACENT WALLS/CONCRETE.
5. COMPACT SUBGRADE, 90% RELATIVE COMPACTION.
6. 6" CRUSHED MISC. BASE, 90% RELATIVE COMPACTION.
7. 1/4" DEEP TOOLED SCORE JOINT WHERE SHOWN ON PLANS.

ADJACENT LANDSCAPE AREAS SHALL BE 3" BELOW FINISHED SURFACE, TYPICAL.

NOTES:

A. SEE SHEET LS-1.2 FOR MATERIALS LEGEND.
B. ALL EXPOSED EDGES SHALL HAVE 1/4" RADIUS.
C. ADJACENT LANDSCAPE AREAS SHALL BE 3" BELOW FINISHED SURFACE, TYPICAL.

(B) CONCRETE PAVING (PCC) — NTS



LEGEND:

1. SINGLE POST PEDESTAL WITH 2' x 3' EXTERIOR GRAPHIC PANEL. REFER TO MATERIALS LEGEND (SHEET LS-1.2) FOR MAKE/MODEL INFO. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
2. 12" x 18" x $\frac{3}{16}$" STANDARD MOUNTING PLATE
3. ADJACENT FINISH SURFACE
4. OMITTED
5. 3" x 3" STEEL POST, COLOR: BLACK
6. $\frac{3}{8}$" Ø J-BOLT, INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
7. 6" x 6" x $\frac{3}{8}$" STEEL PLATE
8. CONCRETE (520-C-5200)
9. 6" CRUSHED MISC. BASE, 90% RELATIVE COMPACTION
10. COMPACT SUBGRADE, 90% RELATIVE COMPACTION

NOTES:

A. ARTWORK SHALL BE PROVIDED BY THE COUNTY. SIGN AND GRAPHICS SHALL BE FABRICATED AND INSTALLED BY THE CONTRACTOR.
B. EACH SIGN SHALL HAVE UNIQUE ARTWORK. (5 TOTAL)
C. CONNECT TO DECKING PER MANUFACTURER'S RECOMMENDATIONS.

(G) INTERPRETIVE SIGN — S: 1/2" = 1'-0"

LEGEND:

1. BOLLARD, 4'-6" DIAMETER, POWDER COATED FINISH. REFER TO MATERIALS LEGEND (SHEET LS-1.2) FOR MAKE/MODEL. AN ALTERNATE BOLLARD BY ANOTHER MANUFACTURER MAY BE SUBMITTED FOR REVIEW
2. CONCRETE SLAB. REFER TO PLAN AND MATERIALS AND FINISH LEGEND
3. CONCRETE (560-C-3250) FOOTING
4. $\frac{3}{8}$" ANCHOR ROD
5. COMPACTED SUBGRADE, 90% RELATIVE COMPACTION

(J) BOLLARD — NTS

PLAN LS

DIGALERT

CALL 8-1-1 TOLL FREE
2 workings days before you dig

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED LANDSCAPE ARCHITECT STEPHEN ZUREK 3717 1-14-13 STATE OF CALIFORNIA

PROJECT LANDSCAPE ARCHITECT

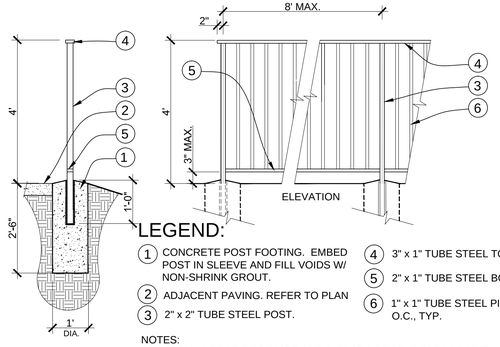
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN
MULTI-USE ENHANCEMENT PROJECT

CONSTRUCTION DETAILS

LS-2.8

FCC0001176	PCA EF21507000		SHEET 10 OF 27



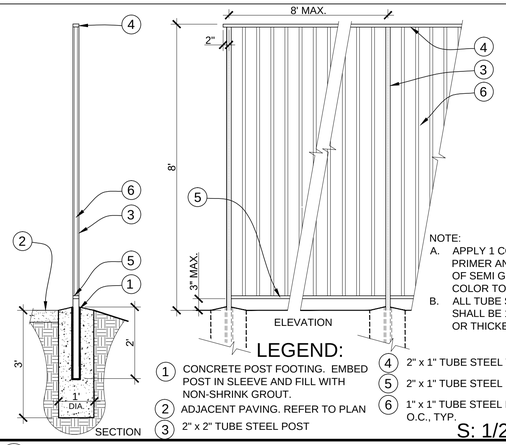
LEGEND:

1. CONCRETE POST FOOTING. EMBED POST IN SLEEVE AND FILL VOIDS W/ NON-SHRINK GROUT.
2. ADJACENT PAVING. REFER TO PLAN
3. 2" x 2" TUBE STEEL POST.
4. 3" x 1" TUBE STEEL TOP RAIL
5. 2" x 1" TUBE STEEL BOTTOM RAIL
6. 1" x 1" TUBE STEEL PICKETS, 4" O.C., TYP.

NOTES:
A. APPLY 1 COAT OF PRIMER AND 2 COATS OF SEMI GLOSS PAINT, COLOR TO BE BLACK.
B. ALL TUBE STEEL SHALL BE 11 GAUGE OR THICKER.

S: 1/2" = 1'-0"

G FENCE ON GRADE, TUBULAR STEEL 4'



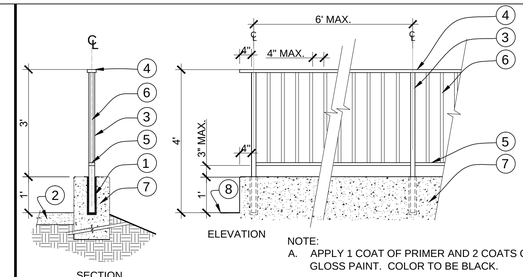
LEGEND:

1. CONCRETE POST FOOTING. EMBED POST IN SLEEVE AND FILL WITH NON-SHRINK GROUT.
2. ADJACENT PAVING. REFER TO PLAN
3. 2" x 2" TUBE STEEL POST
4. 2" x 1" TUBE STEEL TOP RAIL
5. 2" x 1" TUBE STEEL BOTTOM RAIL
6. 1" x 1" TUBE STEEL PICKETS, 4" O.C., TYP.

NOTE:
A. APPLY 1 COAT OF PRIMER AND 2 COATS OF SEMI GLOSS PAINT. COLOR TO BE BLACK.
B. ALL TUBE STEEL SHALL BE 11 GAUGE OR THICKER.

S: 1/2" = 1'-0"

F FENCE ON GRADE, TUBULAR STEEL 8'



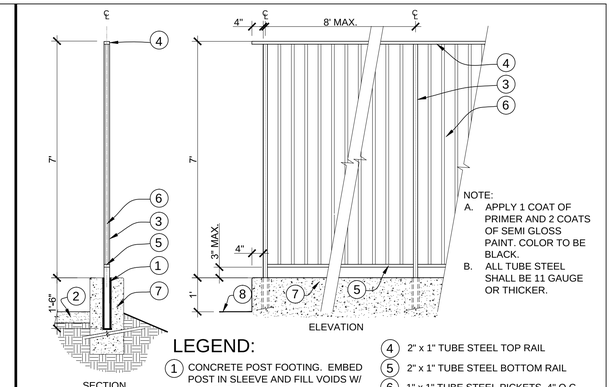
LEGEND:

1. CONCRETE POST FOOTING. EMBED POST IN SLEEVE AND FILL VOIDS WITH NON-SHRINK GROUT.
2. ADJACENT PAVING. REFER TO PLAN.
3. 2" x 2" TUBE STEEL POST
4. 3" x 1" TUBE STEEL TOP RAIL
5. 2" x 1" TUBE STEEL BOTTOM RAIL
6. 1" x 1" TUBE STEEL PICKETS, 4" O.C., TYP.
7. RETAINING WALL, REFER TO SHEET 6
8. FINISHED GRADE

NOTE:
A. APPLY 1 COAT OF PRIMER AND 2 COATS OF SEMI GLOSS PAINT. COLOR TO BE BLACK.
B. ALL TUBE STEEL SHALL BE 11 GAUGE OR THICKER.

S: 1/2" = 1'-0"

C FENCE ON WALL, TUBULAR STEEL 3'



LEGEND:

1. CONCRETE POST FOOTING. EMBED POST IN SLEEVE AND FILL VOIDS W/ NON-SHRINK GROUT.
2. ADJACENT PAVING. REFER TO PLAN.
3. 2" x 2" TUBE STEEL POST
4. 2" x 1" TUBE STEEL TOP RAIL
5. 2" x 1" TUBE STEEL BOTTOM RAIL
6. 1" x 1" TUBE STEEL PICKETS, 4" O.C. MAX., TYP.
7. RETAINING WALL, SEE SHEET 6.
8. FINISHED GRADE

NOTE:
A. APPLY 1 COAT OF PRIMER AND 2 COATS OF SEMI GLOSS PAINT. COLOR TO BE BLACK.
B. ALL TUBE STEEL SHALL BE 11 GAUGE OR THICKER.

A FENCE ON WALL, TUBULAR STEEL 7' S: 1/2" = 1'-0"

NOTES:

A. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR AGENCY APPROVAL PRIOR TO FABRICATION.

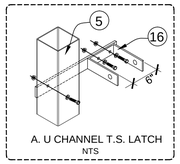
B. ALL METAL SHALL BE GALVANIZED. METAL FINISH (EXCEPT FASTENERS) SHALL RECEIVE 1 COAT OF PRIMER AND 2 COATS OF SEMI GLOSS PAINT. COLOR TO BE BLACK.

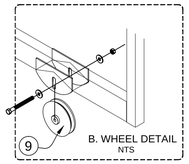
C. CONTRACT TO VERIFY EXACT DIMENSION PRIOR TO FABRICATION.

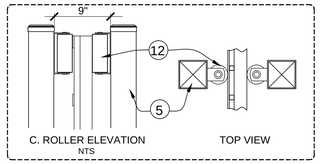
D. PILASTER, WALL AND AND FENCE FOOTING WALL BE ONE CONTINUOUS POUR AT CONDITION WHERE SHOWN ADJACENT TO ONE ANOTHER

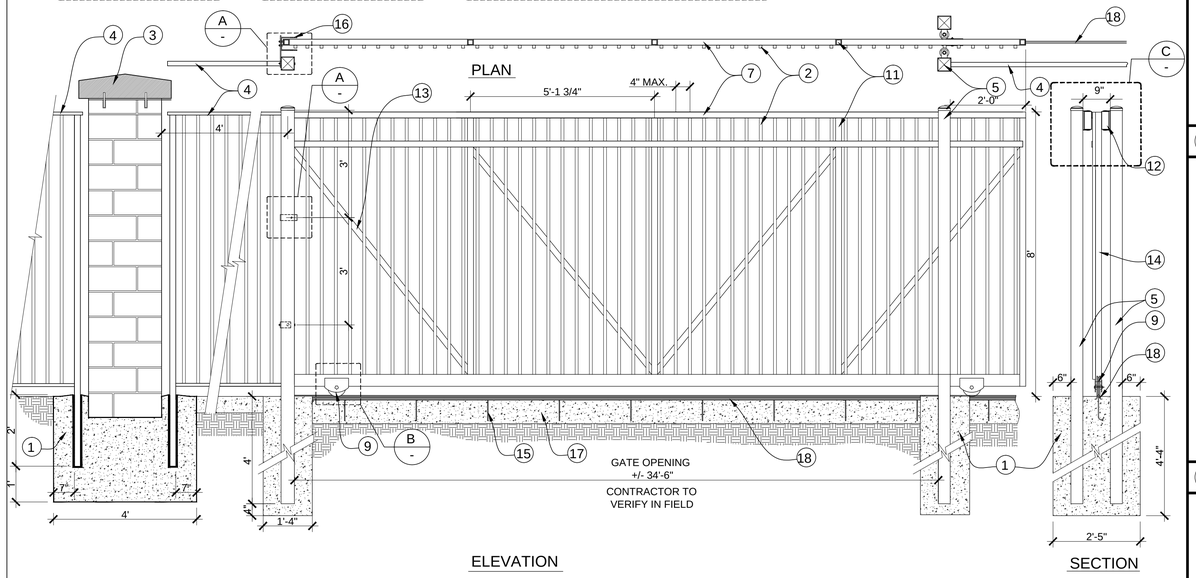
LEGEND:

1. CONCRETE FOOTING, SEE SHEET LS-2.7 DETAIL B
2. 1"X1" TUBE STEEL PICKETS.
3. PILASTER WITH PRECAST CAP. SEE SHEET LS-2.7, DETAIL B.
4. 8' TUBULAR STEEL FENCE. SEE DETAIL F THIS SHEET.
5. 4" x 4" TUBE STEEL GUIDE POST WITH CAP.
6. 2" x 2" TUBE STEEL FENCE POST WITH CAP.
7. 2" x 2" TUBE STEEL FRAME, 2" x 4" AT BOTTOM OF GATE.
8. ADJACENT PAVING, REFER TO PLAN.
9. WHEEL OVER V-TRACK.
10. GATE LATCH.
11. 2" X 1" TUBE STEEL POST, SUPPORT AT EVERY 5' BETWEEN FRAME.
12. ROLLER BRACKET.
13. 2" X 1" DIAGONAL BRACING TUBE STEEL BAR
14. ROLLER GATE
15. TRACK ANCHOR PIN PER MANUFACTURER'S RECOMMENDATION.
16. U CHANNEL STEEL LATCH TO RECEIVE GATE. PROVIDE ¾" DIA. HOLE FOR LOCKING DEVICE.
17. PCC PAVING PER PLAN
18. V-TRACK, INSTALL PER MANUFACTURER'S RECOMMENDATION.

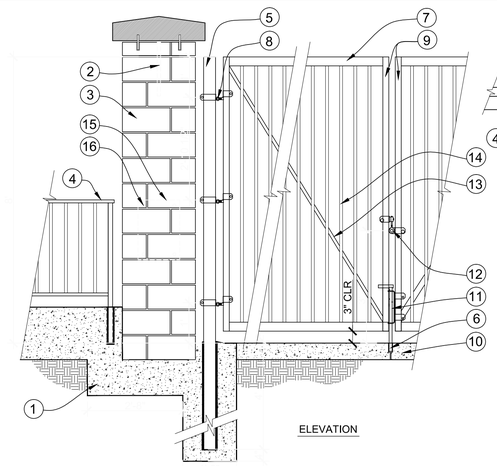


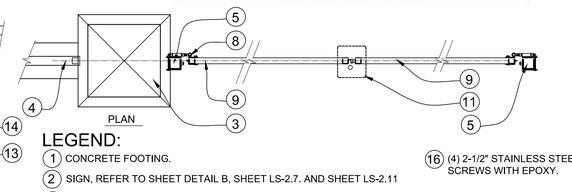






H SLIDING GATE, TUBULAR STEEL 8' S: 1/2" = 1'-0"



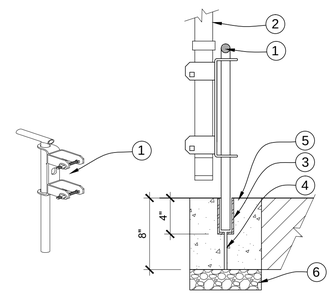


LEGEND:

1. CONCRETE FOOTING.
2. SIGN, REFER TO SHEET DETAIL B, SHEET LS-2.7. AND SHEET LS-2.11
3. PILASTER WITH PRECAST CAP. SEE SHEET LS-2.7, DETAIL B.
4. ADJACENT TUBULAR STEEL FENCE AND WALL.
5. 4" x 4" POST.
6. 1" DIA. CANE BOLT HOLES AT OPEN AND CLOSED POSITIONS.
7. 2" x 2" TUBE STEEL FRAME, 2" x 3" AT BOTTOM OF GATE.
8. INDUSTRIAL 180 DEG. GATE HINGE, 3 PER GATE.
9. GATE. SEE PLAN FOR GATE WIDTHS AND LOCATIONS.
10. ADJACENT PAVING, REFER TO PLAN.
11. CANE BOLT ASSEMBLY. SEE DETAIL E THIS SHEET.
12. GATE LATCH.
13. 2"X1" DIAGONAL TUBE STEEL BRACING.
14. 1"X1" TUBE STEEL PICKET AT 4" O.C. MAX.
15. LOOP SIGNAGE GRAPHIC, SEE SHEET LS-2.11
16. (4) 2-1/2" STAINLESS STEEL LAG SCREW. SECURE SCREWS WITH EPOXY.

NOTES:
A. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR AGENCY APPROVAL PRIOR TO FABRICATION.
B. ALL METAL SHALL BE GALVANIZED. METAL FINISH (EXCEPT FASTENERS) SHALL RECEIVE 1 COAT OF PRIMER AND 2 COATS OF SEMI GLOSS PAINT, COLOR TO BE BLACK.
C. GATE OPENING DIMENSION VARIES. CONTRACT TO VERIFY EXACT DIMENSION FOR EACH GATE LOCATION PRIOR TO FABRICATION.
D. PILASTER, WALL AND AND FENCE FOOTING WALL BE ONE CONTINUOUS POUR AT CONDITION WHERE SHOWN ADJACENT TO ONE ANOTHER

D DOUBLE GATE, TUBULAR STEEL 8' S: 1/2" = 1'-0"



LEGEND:

1. CANE BOLT
2. GATE POST
3. ANCHOR SLEEVE
4. 3/8" DIA. WEEP HOLE
5. PCC, 8" x 8" X 8"
6. CMB, 8" x 8" x 4", 90% RELATIVE COMPACTION

NOTES:
1. LOCATION OF CANE BOLT ANCHOR SLEEVES TO BE FIELD VERIFIED BY THE INSPECTOR.

E CANE BOLT ASSEMBLY S: 1-1/2" = 1'-0"

PLAN LS

CALL 8-1-1 TOLL FREE
2 workings days before you dig

DATE	MK	DESCRIPTION
		REVISIONS

REGISTERED LANDSCAPE ARCHITECT STEPHEN ZUREK 3217 STATE OF CALIFORNIA
1-14-13
PROJECT LANDSCAPE ARCHITECT

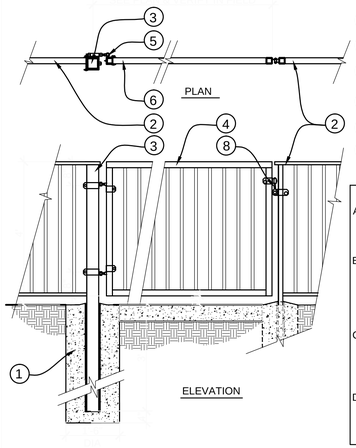
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN
MULTI-USE ENHANCEMENT PROJECT

CONSTRUCTION DETAILS

LS-2.9

FCC0001176	PCA EF21507000		SHEET 11 OF 27



LEGEND:

1. CONCRETE FOOTING.
2. ADJACENT TUBULAR STEEL FENCE, SEE DETAIL 'G' SHEET LS-2.9
3. 4" x 4" POST.
4. 2" x 2" TUBE STEEL FRAME, 2" x 3" AT BOTTOM OF GATE.
5. INDUSTRIAL 180 DEG. GATE HINGE, 3 PER GATE.
6. GATE. SEE PLAN FOR GATE WIDTHS AND LOCATIONS.
7. PAVING, REFER TO PLAN.
8. GATE LATCH.

NOTES:

A. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR AGENCY APPROVAL PRIOR TO FABRICATION.

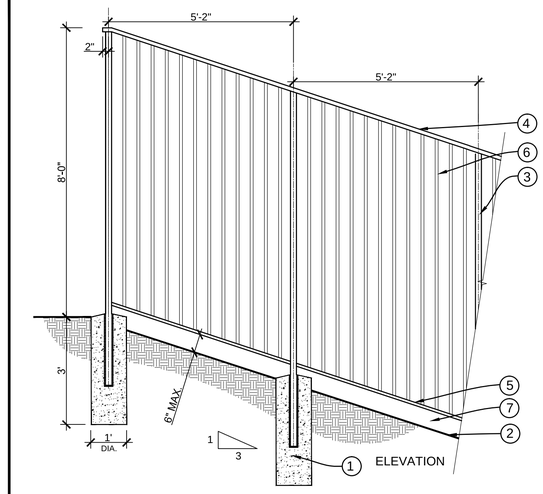
B. ALL METAL SHALL BE GALVANIZED. METAL FINISH (EXCEPT FASTENERS) SHALL RECEIVE 1 COAT OF PRIMER AND 2 COATS OF SEMI GLOSS PAINT, COLOR TO BE BLACK.

C. GATE OPENING DIMENSION VARIES. CONTRACT TO VERIFY EXACT DIMENSION FOR EACH GATE LOCATION PRIOR TO FABRICATION.

D. PILASTER, WALL AND AND FENCE FOOTING WALL BE ONE CONTINUOUS POUR AT CONDITION WHERE SHOWN ADJACENT TO ONE ANOTHER

S: 1/2" = 1'-0"

Ⓓ SINGLE GATE, TUBULAR STEEL GATE 4'



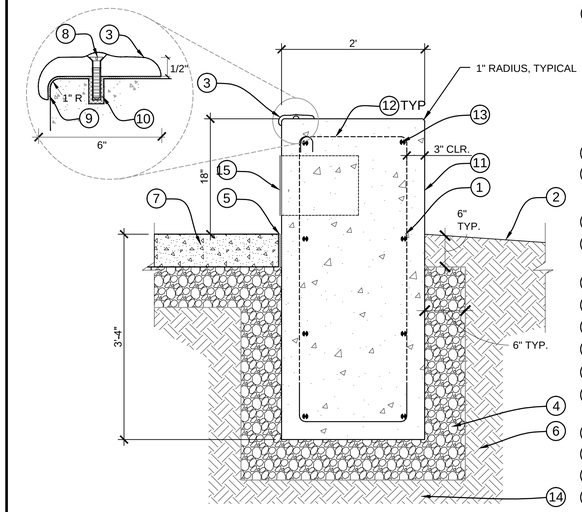
LEGEND:

1. CONCRETE FOOTING, SEE SHEET LS-2.9, DETAIL F.
2. FINISH GRADE
3. 2" x 2" TUBE STEEL POST
4. 3" x 1" TUBE STEEL TOP RAIL
5. 2" x 1" TUBE STEEL BOTTOM RAIL
6. 1" x 1" TUBE STEEL PICKETS, 4" O.C., TYP.
7. MAINTAIN A MAX. OF 6" AND 2" MIN. CLEARANCE FROM THE BOTTOM OF FENCE RAIL TO FINISH GRADE.

NOTES:

1. ALL METAL FINISHES SHALL BE GALVANIZED, 1 COAT OF PRIMER AND 2 COATS OF SEMI GLOSS PAINT. COLOR TO BE BLACK.
2. THIS FENCE CONFIGURATION IS BASED ON 3:1 SLOPE. FOR SLOPE STEEPER THAN 3:1, CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR ENGINEER'S APPROVAL PRIOR TO CONSTRUCTION.
3. ALL TUBE STEEL SHALL BE 11 GAUGE OR THICKER.

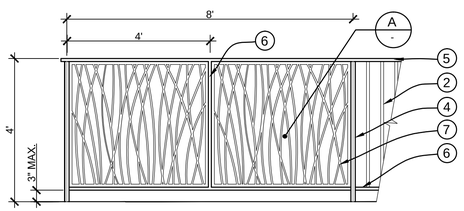
Ⓒ FENCE ON SLOPE, TUBULAR STEEL 8' S: 1/2" = 1'-0"



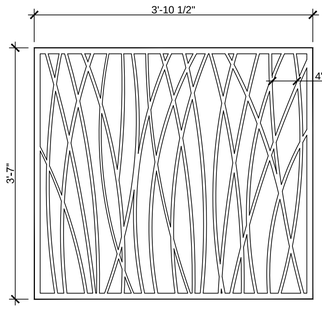
LEGEND:

1. POURED IN PLACE CONCRETE WALL:
   - A. STANDARD CONCRETE, COLOR NATURAL GRAY: MIX 560-C-3250.
   - B. LIGHT SANDBLAST FINISH.
   - C. APPLY A WATERBORNE, LOW VOC, ENVIRONMENTALLY SOUND, CLEAR CURING COMPOUND AND SEALER SUCH AS SCOFIELD CURESEAL-W, BY L.M. SCOFIELD COMPANY OR APPROVED EQUAL.
2. FINISH GRADE.
3. SKATEBOARD DETERRENT, CAST ALUMINUM WITH CLEAR ANODIZED COATING, STARFISH (ARCHITECTURAL SERIES), BY SKATESTOPPERS, OR APPROVED EQUAL. INSTALL 5' ON CENTER AND CENTERED ON THE ENDS OF EACH WALL.
4. CRUSHED MISCELLANEOUS BASE, 90% RELATIVE COMPACTION.
5. EXPANSION JOINT (EJ), 1/2" THICK ASPHALT IMPREGNATED FIBERBOARD. EJ AS SHOWN ON PLANS OR AT EVERY 20' ON CENTER AND AT EVERY CHANGE IN DIRECTION.
6. SUBGRADE, 90% RELATIVE COMPACTION.
7. ADJACENT PAVING, REFER TO PLAN.
8. TAMPER PROOF SCREW.
9. EPOXY, TYPICAL.
10. EXPANSION ANCHOR.
11. APPLY GRAFFITI PREVENTION MATERIAL CONTAINING TWO PARTS EPOXY ON ALL EXPOSED SURFACES. KRYSTALKOAT GRAFFITI PREVENTION MATERIAL OR APPROVED EQUAL.
12. #4 REBAR CONTINUOUS AT 12" O.C.
13. 8 - #4 REBARS AS SHOWN.
14. 90% RELATIVE COMPACTION
15. IN-WALL STEP LIGHT FIXTURE PER PLAN E

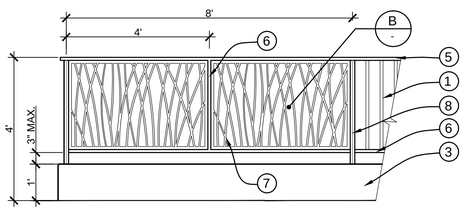
Ⓐ SEAT WALL (PCC) 18" X 24" S: 1" = 1'-0"



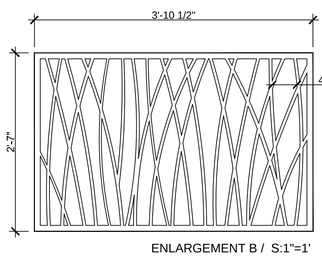
DECORATIVE FENCE ON GRADE



ENLARGEMENT A / S:1"=1'



DECORATIVE FENCE ON WALL



ENLARGEMENT B / S:1"=1'

NOTES:

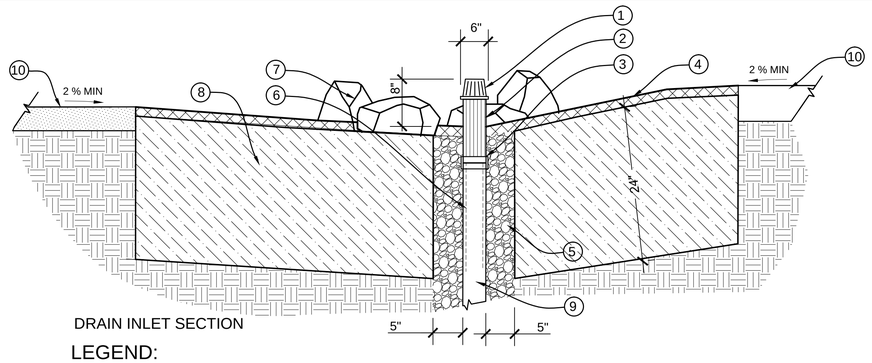
A. ALL METAL FINISH SHALL BE GALVANIZDED, 1 COAT OF PRIMER AND 2 COATS OF SEMI GLOSS PAINT. COLOR TO BE BLACK.

B. STEEL PANELS SHALL BE ¼" THICK, TYP.

C. ARTWORK TO BE PROVIDED BY COUNTY.

D. CONTRACTOR TO VERIFY DIMENSIONS IN FIELD GAIN THE ENGINEER'S APPROVAL PRIOR TO FABRICATION. OPENINGS IN PANEL SHALL NOT EXCEED THAN 4".

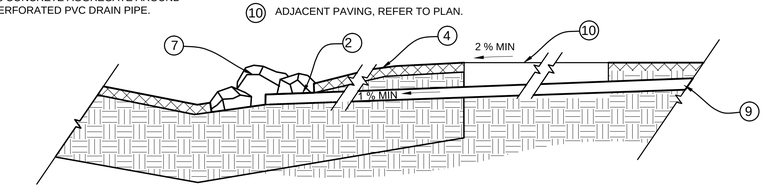
Ⓔ TUBULAR STEEL, DECORATIVE PANEL S: 1/2" = 1'-0"



DRAIN INLET SECTION

LEGEND:

1. 6" DIA. ATRIUM GRATE. T.G.(TOP OF GRATE) SHALL BE 8" ABOVE FINISHED GRADE.
2. 6" DIA. SCH 80 PVC PIPE
3. PVC COUPLER, GLUE JOINT
4. 3" THICK MULCH LAYER
5. #3 CONCRETE AGGREGATE AROUND PERFORATED PVC DRAIN PIPE.
6. 6" DIA. PERFORATED PVC DRAIN PIPE
7. MIN. FIVE BOULDERS (18" TO 24" DIA.) PER INLET/ OUTLET STRUCTURE. MAINTAIN MIN. 12" DISTANCE BETWEEN ROCKS AND INLET STRUCTURE.
8. IMPORTED BIOSWALE SOIL, 24" DEEP TYPICAL
9. PROVIDE POSITIVE DRAINAGE TO OUTLET.
10. ADJACENT PAVING, REFER TO PLAN.



DRAIN OUTLET SECTION

Ⓑ BIOSWALE S: 1" = 1'-0" PLAN LS

DIGALERT

CALL 8-1-1 TOLL FREE
2 workings days before you dig

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED LANDSCAPE ARCHITECT STEPHEN ZUREK 3511 1-14-15 STATE OF CALIFORNIA

PROJECT LANDSCAPE ARCHITECT

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

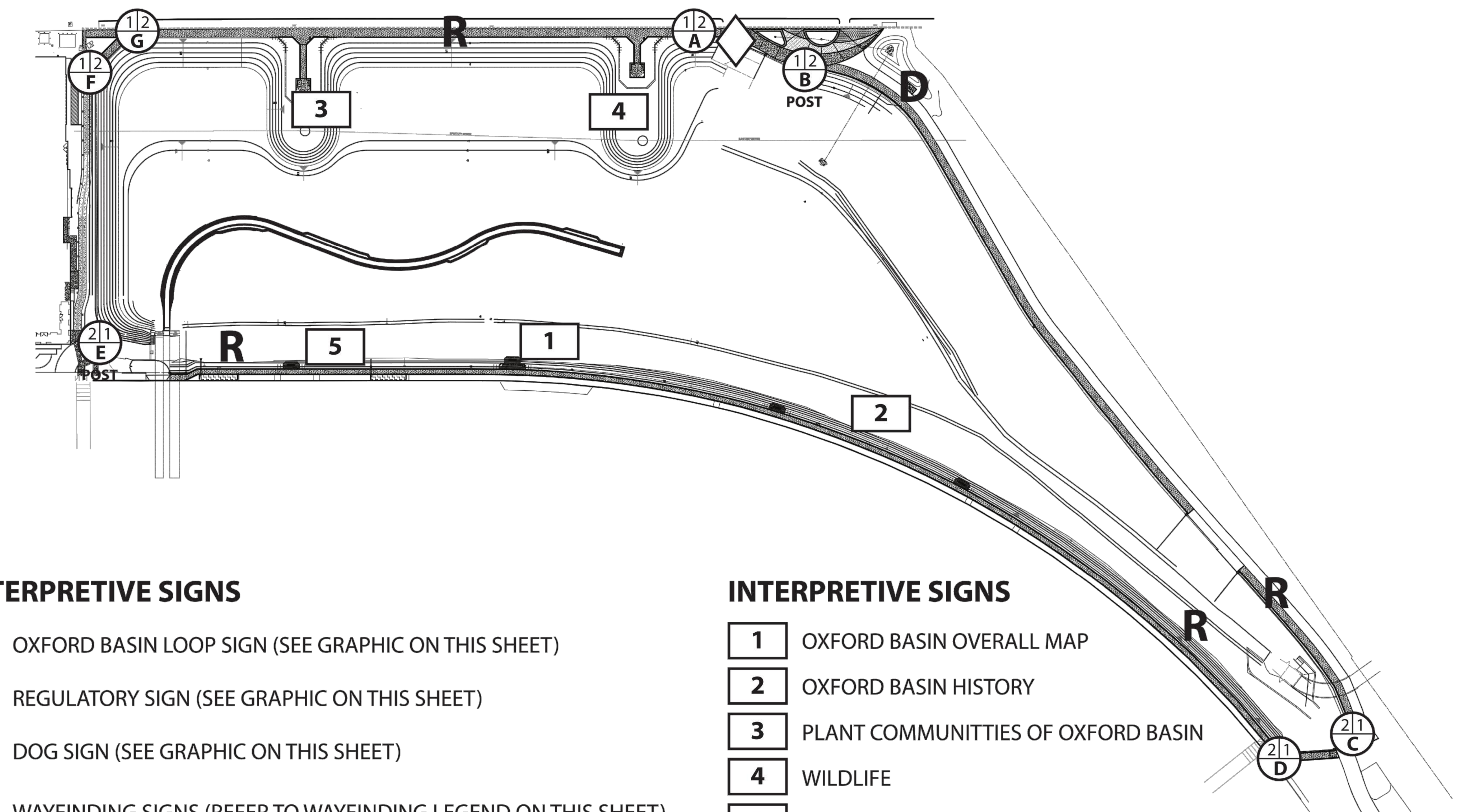
OXFORD RETENTION BASIN MULTI-USE ENHANCEMENT PROJECT

CONSTRUCTION DETAILS

LS-2.10

FCC0001176	PCA EF21507000		SHEET 12 OF 27

SIGN LOCATION PLAN



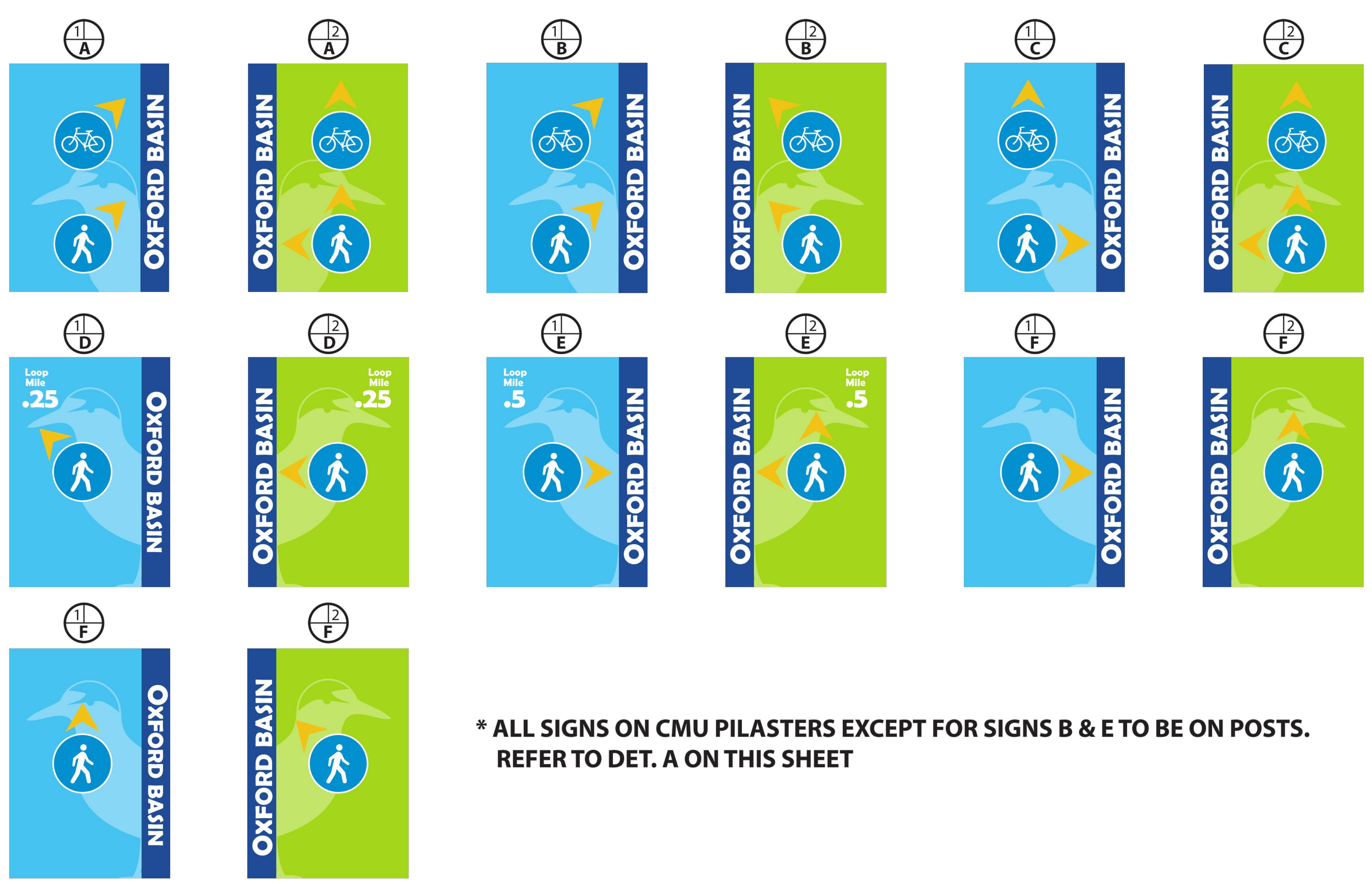
INTERPRETIVE SIGNS

- ◇ OXFORD BASIN LOOP SIGN (SEE GRAPHIC ON THIS SHEET)
- **R** REGULATORY SIGN (SEE GRAPHIC ON THIS SHEET)
- **D** DOG SIGN (SEE GRAPHIC ON THIS SHEET)
- (1|2 A-G) WAYFINDING SIGNS (REFER TO WAYFINDING LEGEND ON THIS SHEET)

INTERPRETIVE SIGNS

1. OXFORD BASIN OVERALL MAP
2. OXFORD BASIN HISTORY
3. PLANT COMMUNITTIES OF OXFORD BASIN
4. WILDLIFE
5. TIDES

WAYFINDING SIGN LEGEND

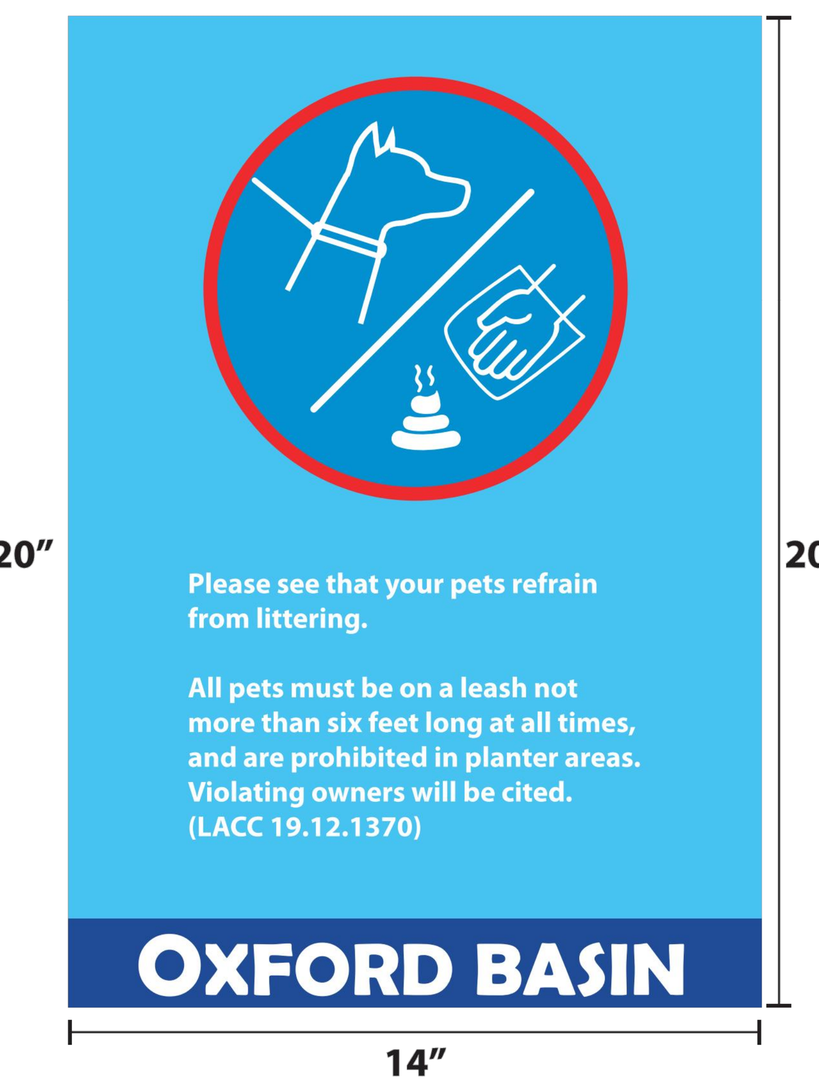


*** ALL SIGNS ON CMU PILASTERS EXCEPT FOR SIGNS B & E TO BE ON POSTS. REFER TO DET. A ON THIS SHEET**

REGULATORY SIGN

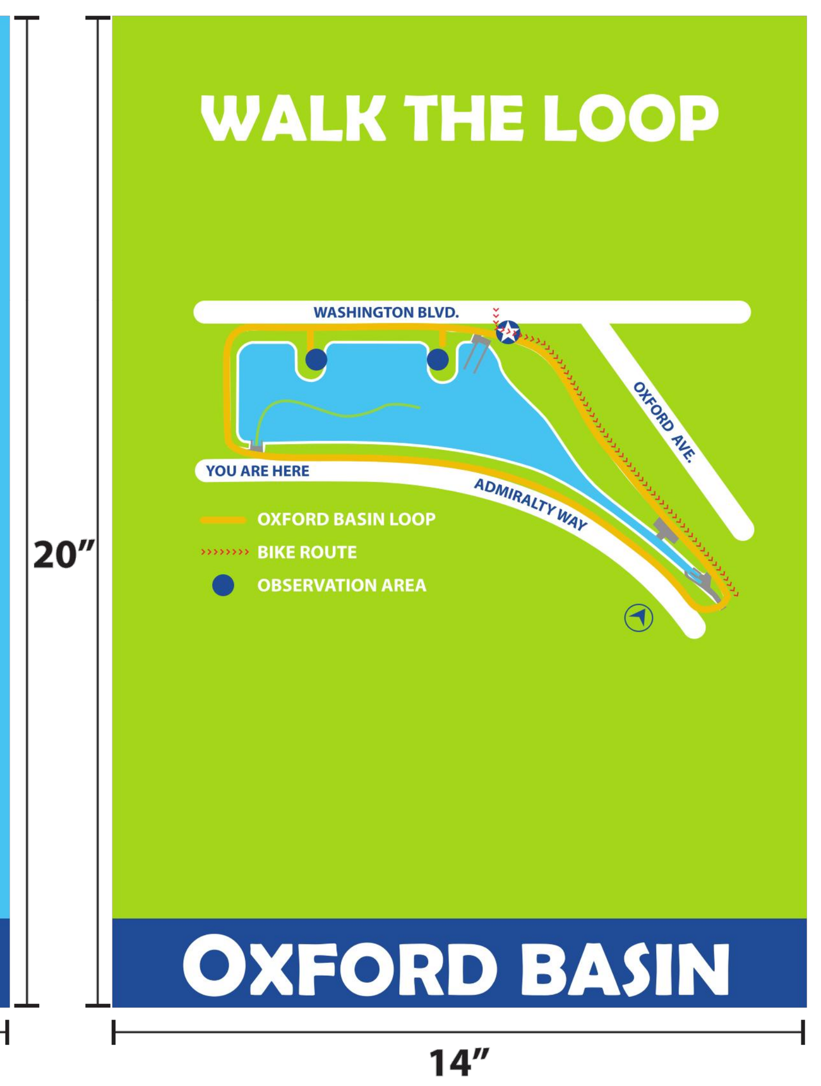
*** SIGN TO BE MOUNTED TO FENCE PICKETS FACING AWAY FROM BASIN**

DOG SIGN



*** SIGN TO BE MOUNTED TO DOG POST**

OXFORD BASIN LOOP SIGN

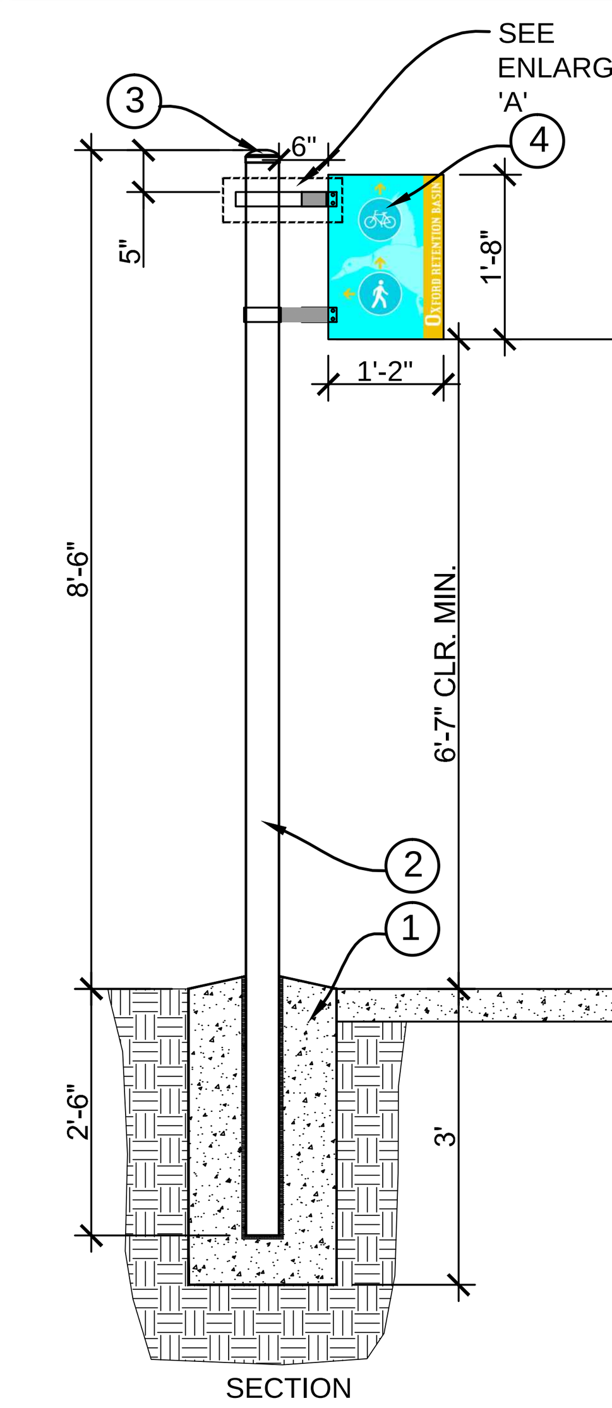


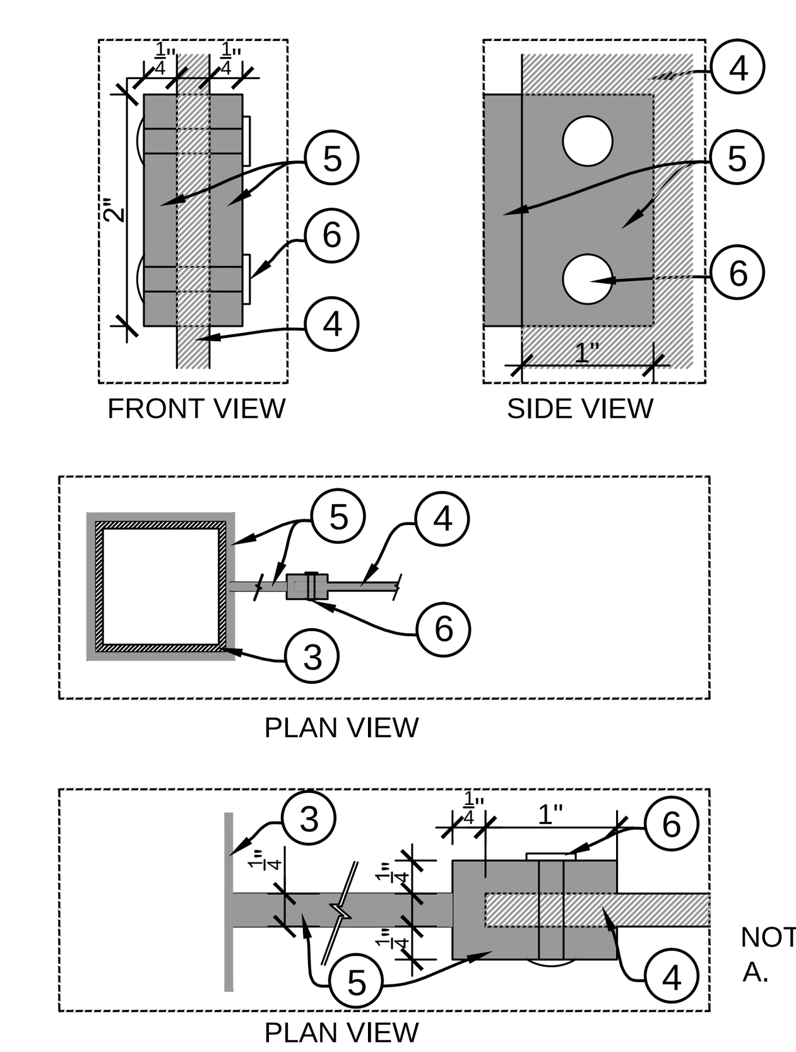
*** SIGN TO BE MOUNTED TO PILASTER FACE**

SIGNAGE GRAPHICS ARE FOR REFERENCE ONLY. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO COUNTY FOR FINAL REVIEW AND APPROVAL.

ARTWORK SHALL BE PROVIDED BY THE COUNTY. SIGN AND GRAPHICS SHALL BE FABRICATED AND INSTALLED BY THE CONTRACTOR.

Ⓑ SIGNAGE LOCATIONS AND GRAPHICS





ENLARGEMENT 'A' - N.T.S.

NOTE:
A. APPLY 1 COAT OF PRIMER AND 2 COATS OF SEMI GLOSS PAINT. COLOR TO BE BLACK.
B. ALL TUBE STEEL SHALL BE 11 GAUGE OR THICKER.

LEGEND:

1. CONCRETE POST FOOTING. EMBED POST IN SLEEVE AND FILL WITH NON-SHRINK GROUT.
2. 4" x 4" TUBE STEEL POST
3. POST CAP
4. REFER SIGNAGE GRAPHICS, THIS SHEET.
5. $\frac{1}{4}$" THICK X 2' WIDE ALUMINUM BRACKET AND BAR WITH SLEEVE TO RECEIVE SIGNAGE PANEL.
6. $\frac{3}{16}$ RIVETS WITH EQUAL DRIVEN HEAD DIAMETER.

S: 1/2" = 1'-0"

Ⓐ SIGNAGE POST | NTS | PLAN LS

DIGALERT
CALL 8-1-1 TOLL FREE
2 workings days before you dig

DATE	MK	DESCRIPTION
REVISIONS		

REGISTERED LANDSCAPE ARCHITECT STEPHEN ZUREK #5119 — 1-14-13 — EXP. 5-31-14 — STATE OF CALIFORNIA
PROJECT LANDSCAPE ARCHITECT

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN
MULTI-USE ENHANCEMENT PROJECT

CONSTRUCTION DETAILS

LS-2.11

FCC0001176 | PCA EF21507000 | SHEET 13 OF 27

IRRIGATION INSTALLATION NOTES:

1. TRENCHING OPTION: CONTRACTOR HAS AS AN OPTION TO INSTALL LATERAL IRRIGATION LINES UTILIZING A TRENCHLESS TECHNIQUE (PULLED IN) WHERE POSSIBLE.
2. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO START OF CONSTRUCTION.
3. CONTRACTOR TO VERIFY LOCATIONS OF ALL EXISTING TREES AND OTHER PLANTS IN THE AREAS OF WORK PRIOR TO START OF CONSTRUCTION.
4. INSTALL PVC SCHEDULE 40 CONDUIT UNDER EXISTING PAVING WHEREVER NECESSARY TO "RUN" CONTROL WIRES. INSTALL CONTROL WIRES A MINIMUM 24" BELOW FINISH GRADE AND 36" UNDER VEHICULAR ROADWAY.
5. ALL VERTICAL CHANGES IN MAINLINE PIPE DIRECTION SHALL BE DONE WITH THE USE OF 45 DEGREE ELBOWS.
6. LATERAL SUPPLY LINES FROM THE VALVE TO THE FIRST HEAD SHALL BE ONE SIZE LARGER THAN THE VALVE, UNLESS OTHERWISE NOTED.
8. WATER METER IS EXISTING. CONTRACTOR SHALL FIELD VERIFY THE EXACT LOCATIONS OF THE METER(S). CONTRACTOR SHALL VERIFY THE P.O.C. LOCATION AND NOTIFY THE ENGINEER FOR ANY DISCREPANCIES. SEE PLANS FOR AVAILABLE WATER PRESSURE AT THE P.O.C. AND WATER PURVEYOR'S INFORMATION.
9. REPAIR ALL EXISTING MATERIALS DAMAGED OR EXPOSED BY NEW IRRIGATION INSTALLATION WORK OR BY ANY OTHER CONSTRUCTION WORK, MATCH EXISTING ADJACENT WORK IN TEXTURE AND COLOR.
10. ALL QUICK COUPLING VALVES SHALL BE INSTALLED IN LOCK LID VALVE BOXES. MARK ALL BOXES Q.C.V. WITH EPOXY PAINT.
11. IRRIGATION HEADS SHALL BE PROPERLY POSITIONED TO ALLOW STANDARD OPERATION, RETRACTION, AND SHALL BE ADJUSTED SO THERE IS NO OVERPSRAYING ONTO ADJACENT SIDEWALKS, PAVEMENT(S), AND ROADWAYS.
12. CONTRACTOR SHALL MAKE ALL NECESSARY ADJUSTMENTS TO ENSURE THAT ALL COMPONENTS OF THE IRRIGATION SYSTEM PERFORM PROPERLY DURING CONSTRUCTION AND MAINTENANCE PERIODS.
13. CONTRACTOR SHALL PROVIDE AND INSTALL FLOW METER(S) AND MASTER CONTROL VALVE(S) FOR ALL PROPOSED AUTOMATIC IRRIGATION CONTROL SYSTEM(S) AS SHOWN ON PLANS. INSTALLATION SHALL BE PER DETAILS AND MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL BE RESPONSIBLE TO PROGRAM THE AUTOMATIC IRRIGATION CONTROLLER(S) SO THE SYSTEM SHALL BE FULLY OPERATION TO DETECT MAIN AND LATERAL LINE BREAKAGE.
14. ADJUST LOCATION OF IRRIGATION HEADS AS NECESSARY TO MINIMIZE SPRAY INTERFERENCE AGAINST OBSTRUCTIONS (CONCRETE WALLS, TELEPHONE AND POWER POLES, TREES, ETC.).
15. ADJUST ALL ADJUSTABLE ARC NOZZLES AS NECESSARY TO AVOID UNDER-SPRAY OF PLANTING AREAS AND OVER-SPRAY OF WALLS AND SIDEWALKS.
16. CONTRACTOR SHALL ADJUST POSITION OF ROTOR IRRIGATION HEADS IN FIELD, AS NECESSARY, TO MAINTAIN **10' MIN.** DISTANCE FROM TRUNKS OF TREES.
17. FOLLOWING IRRIGATION HEAD INSTALLATION, ADJUST RADIUS THROW TO CONFORM TO SITE CONDITIONS.
18. INSTALL NEW ELECTRIC IRRIGATION CONTROLLERS WHERE SHOWN ON PLAN. EXTEND ELECTRICAL CONDUIT AND WIRES FROM ELECTRICAL P.O.C. SHOWN ON PLAN TO THE CONTROLLER AND MAKE CONNECTIONS AS NECESSARY TO PROVIDE AN OPERATIONAL ELECTRICAL AUTOMATIC IRRIGATION SYSTEMS.
19. ON ALL CONTROLLERS 50 FEET OR MORE FROM THE CIRCUIT BREAKER, PROVIDE AND INSTALL A SEPARATE DISCONNECT SWITCH AT THE CONTROLLER.

s

20. CONTRACTOR SHALL VERIFY THE FIELD CONDITIONS AND INSTALL ADDITIONAL IN-LINE CHECK VALVES WHEREVER NECESSARY TO PREVENT LOW-HEAD DRAINAGE.
21. ALL TREES ARE TO BE WATERED BY A SEPARATE BUBBLER SYSTEM. SEE IRRIGATION DETAIL FOR BUBBLER INSTALLATION.
22. INSTALL X-OVER SLEEVES (CLASS 315 PVC UNLESS NOTED OTHERWISE) WHERE SHOWN ON THE PLANS, AT INTERSECTIONS, AND WHEREVER PIPE CROSSES UNDER PAVEMENTS. ALL SLEEVES SHALL EXTEND 6" INTO PLANTING AREAS AT BOTH ENDS. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE SLEEVES PRIOR TO PAVING/PATH/ETC. BEING INSTALLED. NOT ALL SLEEVES MAY BE INDICATED ON PLANS.
23. "BORE" UNDER EXISTING PAVING WHEREVER POSSIBLE. SAWCUT EXISTING PAVING WHERE NECESSARY AS APPROVED TO INSTALL PIPING/SLEEVE.
24. CONTRACTOR SHALL ADJUST EXACT LOCATIONS OF IRRIGATION PIPES AND TUBINGS TO AVOID CATCH BASINS AND OTHER SITE AMENITIES.
25. VERIFY THE EXISTING GROUNDING SYSTEM. SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.
26. ALL HEADS WITH CHECK VALVES AND PRESSURE REGULATION DEVICES IN POP-UP STEM SHALL BE CONNECTED THOUGH BOTTOM INLET AND NOT SIDE INLET.

IRRIGATION SPRINKLER LEGEND

SYMBOL	DESCRIPTION	MANUFACTURER	MODEL	NOZZLE	RADIUS	GPM	PSI	PATTERN	DETAIL
(A)	12" POP-UP SHRUB ROTOR	RAINBIRD OR APPROVED EQUAL	5012-PC-SAM	5000-MPR-25	25'	1.0,2.0	45	QTR./HLF	I/SHT3.6
(B)	12" POP-UP SHRUB ROTOR	RAINBIRD OR APPROVED EQUAL	5012-PC-SAM	5000-MPR-30	30'	1.4,3.0	45	QTR./HLF	I/SHT3.6
(C)	12" POP-UP SHRUB ROTOR	RAINBIRD OR APPROVED EQUAL	5012-PC-SAM	5000-MPR-35	35'	1.9,3.8	45	QTR./HLF	I/SHT3.6
(A1)	SHRUB ROTOR ON RISER	RAINBIRD OR APPROVED EQUAL	5000-S-PC-SAM	5000-MPR-25	25'	1.0,2.0	45	QTR./HLF	F/SHT3.6
(C1)	SHRUB ROTOR ON RISER	RAINBIRD OR APPROVED EQUAL	5000-S-PC-SAM	5000-MPR-35	35'	1.9,3.8	45	QTR./HLF	F/SHT3.6
[A1]	SHRUB ROTOR ON RISER	RAINBIRD OR APPROVED EQUAL	5000-S-FC-SAM	5000-MPR-25	25'	3.82	45	FULL	F/SHT3.6
[B1]	SHRUB ROTOR ON RISER	RAINBIRD OR APPROVED EQUAL	5000-S-FC-SAM	5000-MPR-30	30'	5.78	45	FULL	F/SHT3.6
[C1]	SHRUB ROTOR ON RISER	RAINBIRD OR APPROVED EQUAL	5000-S-FC-SAM	5000-MPR-35	35'	7.58	45	FULL	F/SHT3.6
(MP)	12" POP-UP ROTARY	RAINBIRD/HUNTER OR APPROVED EQUAL	1812-SAM-PRS	MP ROTATOR	8'-24'	1.58MAX	30	QTR./HLF	K/SHT3.7
(R)	12" POP-UP ROTORY	RAINBIRD OR APPROVED EQUAL	1812-SAM-PRS	R13-18	13'-18'	0.80MAX	30	QTR./HLF	K/SHT3.7
(R1)	ROTARY NOZZLE ON RISER	RAINBIRD OR APPROVED EQUAL	PA-8S-PRS	R13-18	13'-18'	0.80MAX	30	QTR./HLF	G/SHT3.6
<T>	TREE BUBBLER 2 PER TREE	RAINBIRD OR APPROVED EQUAL	RWS-B-C-1401	1401	--	0.50	30	FULL	M/SHT3.7
◎	DRIP EMITTER ON FLEX RISER	GPH OR APPROVED EQUAL	GPST-1 W/GIH-12	--	--	1GPH	30	FULL	N/SHT3.7

IRRIGATION EQUIPMENT LEGEND

SYMBOL	DESCRIPTION	MANUFACTURER	MODEL/TYPE	SIZE	DETAIL
	REMOTE CONTROL VALVE	RAINBIRD OR APPROVED EQUAL	150-PEB-PRS-D W/FD-101-TURF	1.5"	C/SHT3.6
	REMOTE CONTROL DRIP VALVE W/ INLINE WYE FILTER AND PRESSURE REGULATOR	RAINBIRD OR APPROVED EQUAL	XCZ-100-COM W/FD-101-TURF	1"	D/SHT3.6
	QUICK COUPLER	RAINBIRD OR APPROVED EQUAL	33 DLRC	3/4"	E/SHT3.6
	GATE VALVE	NIBCO OR APPROVED EQUAL	T-113-K	LINE SIZE	J/SHT3.6
	BALL VALVE	KBI OR APPROVED EQUAL	SCH.80 TRUE UNION	LINE SIZE	L/SHT3.7
	POINT OF CONNECTION - TIE INTO EXISTING BACKFLOW AND INSTALL NEW ENCLOSURE			SEE PLAN	H/SHT3.6
C	50 STATION 2-WIRE ET BASED CONTROLLER WALL MOUNT IN METAL ENCLOSURE	RAINBIRD OR APPROVED EQUAL	ESP-LXD-ETC-LX-LXMM	SEE PLAN	A/SHT3.6
	MASTER VALVE WIRED DIRECTLY TO CONTROLLER	GRISWALD OR APPROVED EQUAL	2100 SERIES	2"	B/SHT3.6
F	FLOW SENSOR WIRED DIRECTLY TO CONTROLLER	RAINBIRD OR APPROVED EQUAL	FM 1.5B W/SD210TURF DECODER	1.5"	B/SHT3.6
MS	SOIL MOISTURE SENSORS FOR SWALE	WATERMARK OR APPROVED EQUAL	WEM-B W/SD210TURF DECODER		O/SHT3.7
	LATERAL LINE		SEE SPECS	SEE PLAN	Q/SHT3.7
	LATERAL LINE ON-GRADE STAKE 10'OC		SEE SPECS	SEE PLAN	G/F/SHT3.6
	MAIN LINE		SEE SPECS	2.5"	Q/SHT3.7
	PIPE SLEEVE FOR CONTROLLER WIRES.		SEE SPECS	3"	Q/SHT3.7
	PIPE SLEEVE		SEE SPECS	2x PIPE SIZE	P/Q SHT3.7
NO SYMBOL	TWO WIRE COMMUNICATION CABLE WITH SURGE PROTECTION	RAINBIRD OR APPROVED EQUAL	MAXICABLE W/ LSP-1 500' ON CENTER		N/A

VALVE SYMBOL

16 | 3 | 1-1/4"

STATION NUMBER
VALVE SIZE
GPM

IRRIGATION SCHEDULE AND PRESSURE CALCULATION

IRRIGATION CONTROLLER RUN TIMES

POC or Controller				JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total / Avg.
A	ETo / Month (Inches):			1.60	1.90	3.00	4.10	4.50	5.70	5.90	5.50	4.90	3.50	2.10	1.50	44.20
	ETo / Day (Inches):			0.05	0.07	0.10	0.14	0.15	0.19	0.19	0.18	0.16	0.11	0.07	0.05	0.12
	Irrigation Days / Week:			6	6	6	6	6	6	6	6	6	6	6	6	
Plant / Irrig. Type	AKc	Pr Rate	IE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
Shrubs	0.40	0.64	0.90	2.5	3.3	4.7	6.6	7.1	9.2	9.3	8.6	7.9	5.5	3.4	2.4	Min./Day/Zone
Drip	Number of Zones:		6	15.1	19.8	28.2	39.9	42.3	55.4	55.5	51.7	47.6	32.9	20.4	14.1	Total Min./Day
Trees	0.80	3.00	0.90	1.1	1.4	2.0	2.8	3.0	3.9	3.9	3.7	3.4	2.3	1.5	1.0	Min./Day/Zone
Bubbler	Number of Zones:		4	4.3	5.6	8.0	11.3	12.0	15.8	15.8	14.7	13.6	9.4	5.8	4.0	Total Min./Day
Shrubs	0.40	0.39	0.80	4.6	6.1	8.7	12.3	13.0	17.1	17.1	15.9	14.7	10.1	6.3	4.3	Min./Day/Zone
MP Rotators	Number of Zones:		9	41.7	54.8	78.2	110.4	117.2	153.5	153.7	143.3	131.9	91.2	56.5	39.1	Total Min./Day
Shrubs	0.40	0.60	0.80	3.0	4.0	5.6	8.0	8.5	11.1	11.1	10.3	9.5	6.6	4.1	2.8	Min./Day/Zone
Rotors	Number of Zones:		23	69.2	91.0	129.8	183.4	194.8	254.9	255.3	238.0	219.1	151.5	93.9	64.9	Total Min./Day
Total Number of Zones:			42	130	171	244	345	366	480	480	448	412	285	177	122	Total Min./Day
Total Controller Run Time in Hours:				2.17	2.85	4.07	5.75	6.11	7.99	8.01	7.46	6.87	4.75	2.94	2.04	Total Hrs./Day
				JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	

IRRIGATION PRESSURE CALCULATION 'A13' HIGHEST FLOW AT HIGHEST ELEVATION

STATION #: A13
FARTHEST SYSTEM/
HIGHEST FLOW SYSTEM

STATIC PRESSURE: 85PSI
MAX. GPM DEMAND: 36.1GPM

L.F.	SIZE	TYPE	DESCRIPTION	GPM	UNIT PSI LOSS
	2"	BRASS	WATER METER	36.1	1.0
	2"	BRASS	BACKFLOW/STRAINER	36.1	12
	2"	BRASS	MASTER VALVE	36.1	1.0
	1.25"	BRASS	FLOW SENSOR	36.1	2.1
	1.5"	PVC	CONTROL VALVE	36.1	2.3
1100'	2.5"	CL. 315	MAIN LINE	36.1	4.3
	VAR.	SCH.40	LATERAL LINE		4.0
	MISC.	FITTINGS	ALLOWANCE		1.0

COMPONENT LOSSES:	27.7 PSI
MIN. REQ'D BY HEAD:	45 PSI
ELEVATION LOSS:10'TO 15'	2.2 PSI
TOTAL PRESSURE REQ'D AT METER	74.9 PSI
RESIDUAL PRESSURE	10.1 PSI

DIGALERT
CALL 8-1-1 TOLL FREE
2 workings days before you dig

DATE	MK	DESCRIPTION

REVISIONS

sweeney + associates
IRRIGATION DESIGN AND CONSULTING
38730 Sky Canyon Drive, Suite C
Murrieta, Ca 92563
e: info@sweeneyassoc.com | t: (951) 461-6830
w: www.sweeneyassoc.com | f: (951) 461-6850

LICENSED LANDSCAPE ARCHITECT
ERIC PAUL ARAMBULO VIADO
LICENSE NO. 5289
SIGNATURE
2-28-14
RENEWAL DATE
11/20/12
DATE
STATE OF CALIFORNIA

PROJECT LANDSCAPE ARCHITECT DATE

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

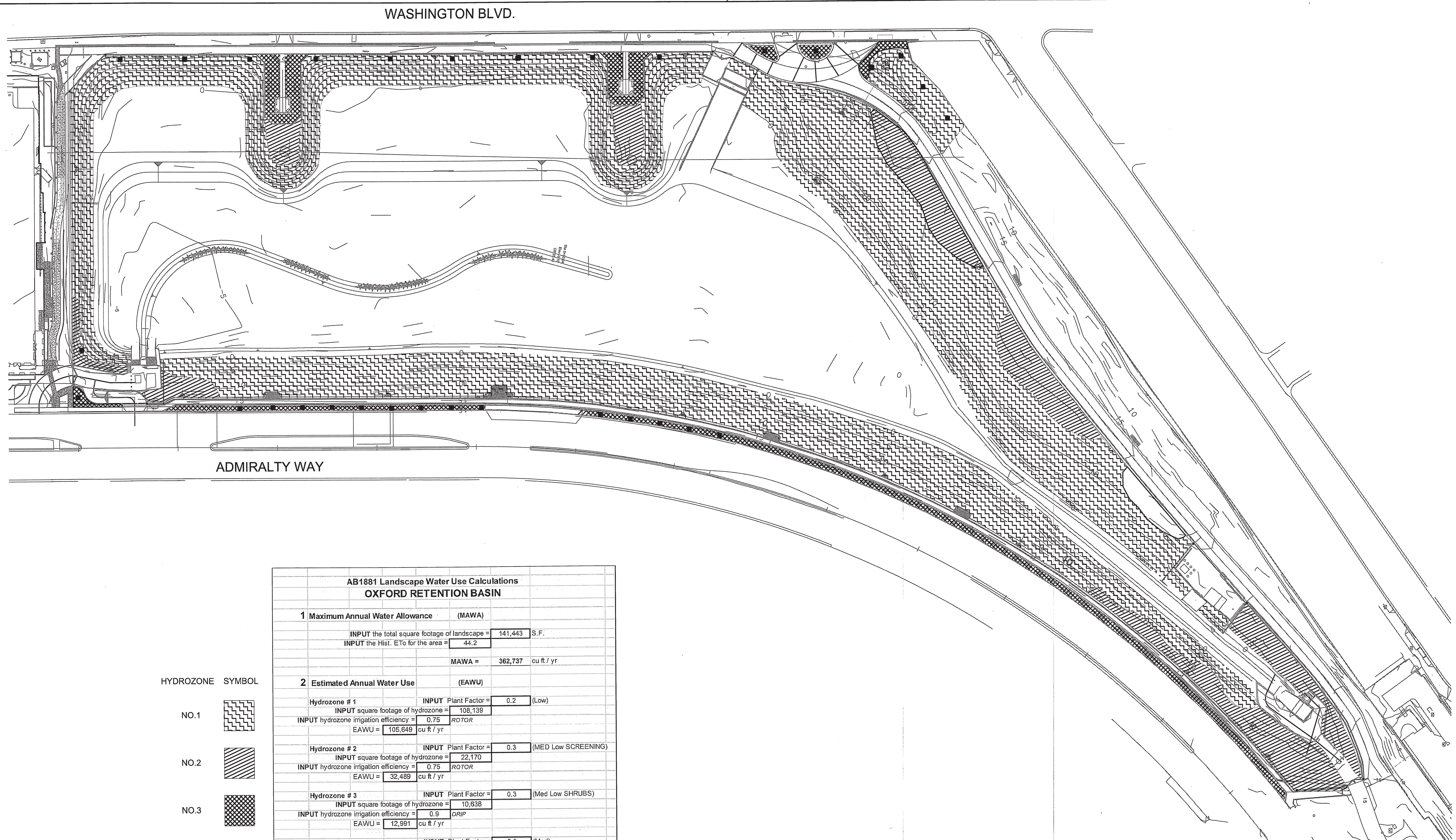
OXFORD RETENTION BASIN MULTIUSE ENHANCEMENT PROJECT

IRRIGATION LEGENDS

LS-3.0

PCA EF21507000 | WMD | SHEET 14 OF 27

DATE 11/1/12
REVIEWED BY KHAI CHUNG
CAD PROJECT FILE NAME OXFORD IRR SHEETS.DWG
CHECKER ERIC VIADO
DESIGNER CHRIS CURRY
DRAFTER CHRIS CURRY



HYDROZONE	SYMBOL
NO.1	
NO.2	
NO.3	
NO.4	

AB1881 Landscape Water Use Calculations

OXFORD RETENTION BASIN

1 Maximum Annual Water Allowance	**(MAWA)**		
INPUT the total square footage of landscape =	141,443	S.F.	
INPUT the Hist. ETo for the area =	44.2		
MAWA =	**362,737**	cu ft / yr	
2 Estimated Annual Water Use	**(EAWU)**		
Hydrozone # 1 — **INPUT** Plant Factor =	0.2	(Low)	
INPUT square footage of hydrozone =	108,139		
INPUT hydrozone irrigation efficiency =	0.75	*ROTOR*	
EAWU =	105,649	cu ft / yr	
Hydrozone # 2 — **INPUT** Plant Factor =	0.3	(MED Low SCREENING)	
INPUT square footage of hydrozone =	22,170		
INPUT hydrozone irrigation efficiency =	0.75	*ROTOR*	
EAWU =	32,489	cu ft / yr	
Hydrozone # 3 — **INPUT** Plant Factor =	0.3	(Med Low SHRUBS)	
INPUT square footage of hydrozone =	10,638		
INPUT hydrozone irrigation efficiency =	0.9	*DRIP*	
EAWU =	12,991	cu ft / yr	
Hydrozone # 4 — **INPUT** Plant Factor =	0.5	(Med)	
INPUT square footage of hydrozone =	496		
INPUT hydrozone irrigation efficiency =	0.8	*BUBBLERS*	
EAWU =	1,136	cu ft / yr	
SubTotal EAWU =	152,265	cu ft / yr	
Input Irrigation System Operation Factor	0.85		
Total EAWU =	**179,135**		
MAWA - EAWU =	**183,602**	cu ft / yr	
(this number must be positive)			

NORTH

0 25' 50' 100' 150'

GRAPHIC SCALE: 1"=50'

DATE	MK	DESCRIPTION

REVISIONS

LICENSED LANDSCAPE ARCHITECT — ERIC PAUL ARAMBULO VIADO — LICENSE NO. 5289 — SIGNATURE 2-28-14 — RENEWAL DATE 11/30/12 — STATE OF CALIFORNIA

PROJECT LANDSCAPE ARCHITECT DATE

sweeney + associates
IRRIGATION DESIGN AND CONSULTING
38730 Sky Canyon Drive, Suite C
Murrieta, Ca 92563
e: info@sweeneyassoc.com | t: (951) 461-6830
w: www.sweeneyassoc.com | f: (951) 461-6850

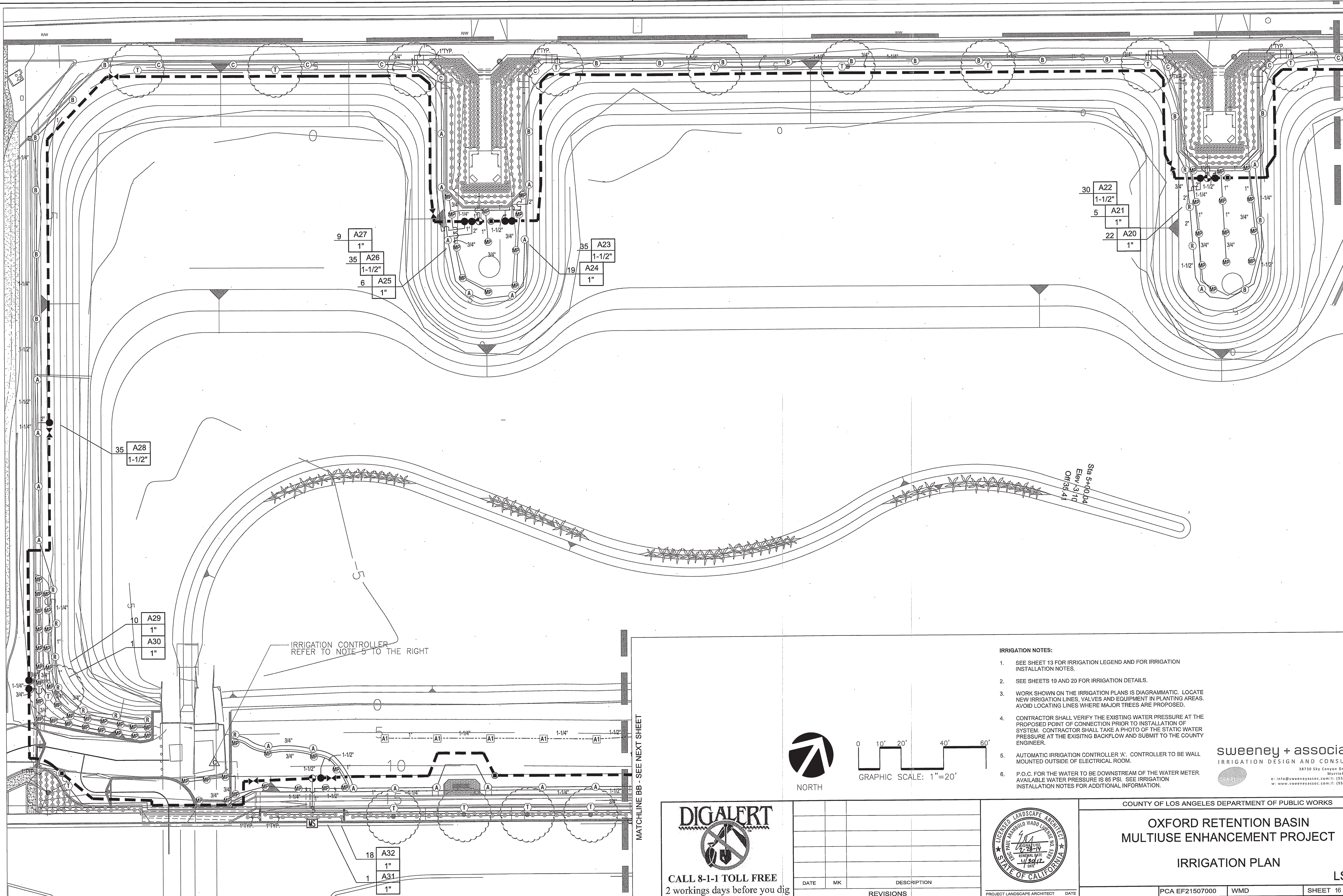
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN
MULTIUSE ENHANCEMENT PROJECT
HYDROZONE PLAN

LS-3.1

PCA EF21507000 | WMD | SHEET 15 OF 27

DRAFTER CHRIS CURRY | DESIGNER CHRIS CURRY | CHECKER ERIC VIADO | CAD PROJECT FILE NAME OXFORD IRR SHEETS.DWG | REVIEWED BY KHAI CHUNG | DATE 11/1/12



DRAFTER	CHRIS CURRY
DESIGNER	CHRIS CURRY
CHECKER	ERIC VIADO
CAD PROJECT FILE NAME	OXFORD IRR SHEETS.DWG
REVIEWED BY	KHAI CHUNG
DATE	11/1/12

IRRIGATION NOTES:

1. SEE SHEET 13 FOR IRRIGATION LEGEND AND FOR IRRIGATION INSTALLATION NOTES.
2. SEE SHEETS 19 AND 20 FOR IRRIGATION DETAILS.
3. WORK SHOWN ON THE IRRIGATION PLANS IS DIAGRAMMATIC. LOCATE NEW IRRIGATION LINES, VALVES AND EQUIPMENT IN PLANTING AREAS. AVOID LOCATING LINES WHERE MAJOR TREES ARE PROPOSED.
4. CONTRACTOR SHALL VERIFY THE EXISTING WATER PRESSURE AT THE PROPOSED POINT OF CONNECTION PRIOR TO INSTALLATION OF SYSTEM. CONTRACTOR SHALL TAKE A PHOTO OF THE STATIC WATER PRESSURE AT THE EXISITNG BACKFLOW AND SUBMIT TO THE COUNTY ENGINEER.
5. AUTOMATIC IRRIGATION CONTROLLER 'A'. CONTROLLER TO BE WALL MOUNTED OUTSIDE OF ELECTRICAL ROOM.
6. P.O.C. FOR THE WATER TO BE DOWNSTREAM OF THE WATER METER. AVAILABLE WATER PRESSURE IS 85 PSI. SEE IRRIGATION INSTALLATION NOTES FOR ADDITIONAL INFORMATION.

sweeney + associates
IRRIGATION DESIGN AND CONSULTING
38730 Sky Canyon Drive, Suite C
Murrieta, Ca 92563
e: info@sweeneyassoc.com | t: (951) 461-6830
w: www.sweeneyassoc.com | f: (951) 461-6850

DIGALERT
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DATE	MK	DESCRIPTION

REVISIONS

LICENSED LANDSCAPE ARCHITECT — ERIC PAUL ARAMBULO VIADO — LICENSE NO. 5289 — STATE OF CALIFORNIA
SIGNATURE 2-28-14
RENEWAL DATE 11/30/12
DATE

PROJECT LANDSCAPE ARCHITECT DATE

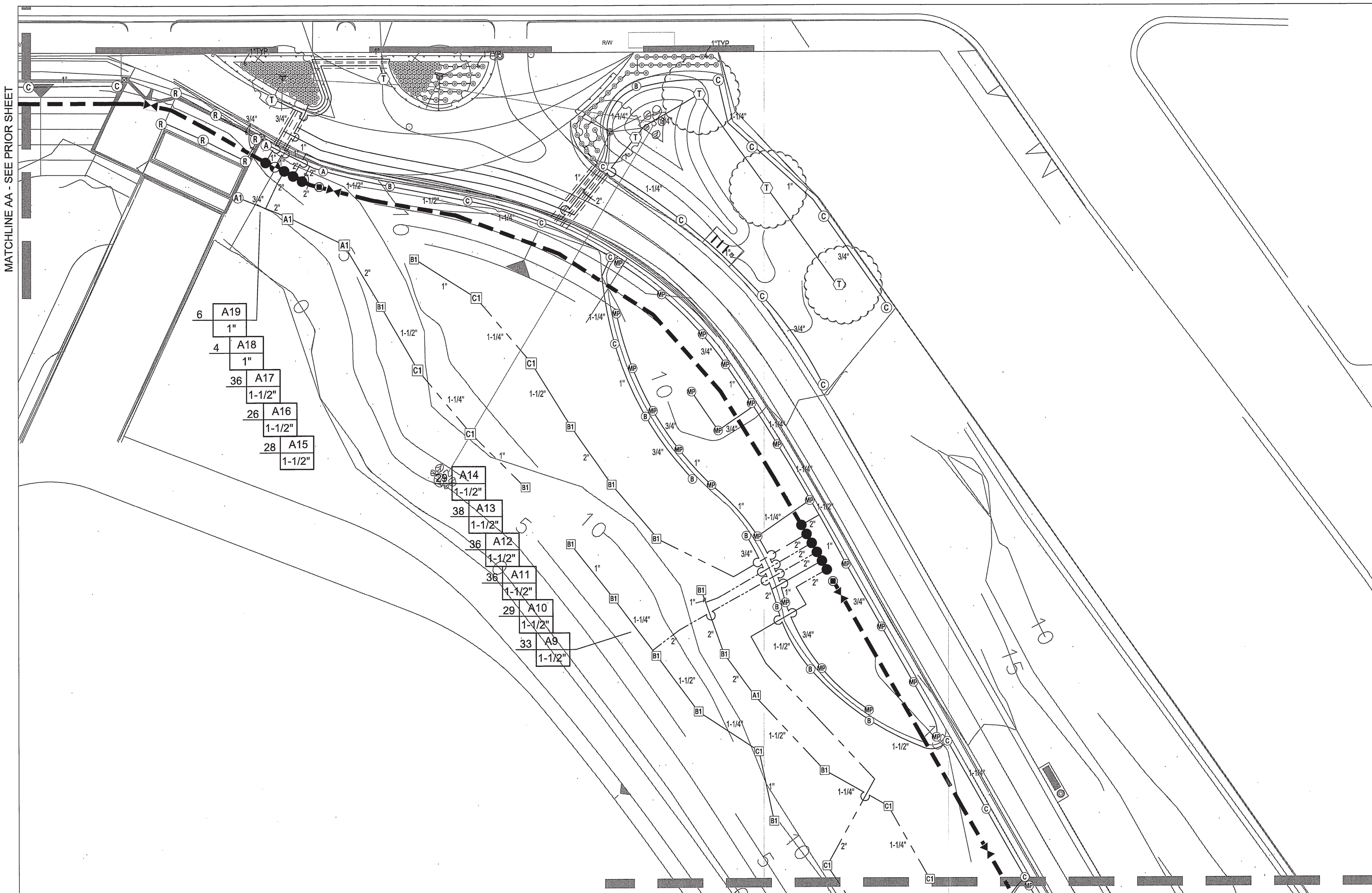
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN MULTIUSE ENHANCEMENT PROJECT

IRRIGATION PLAN

LS-3.2

PCA EF21507000 | WMD | SHEET 16 OF 27



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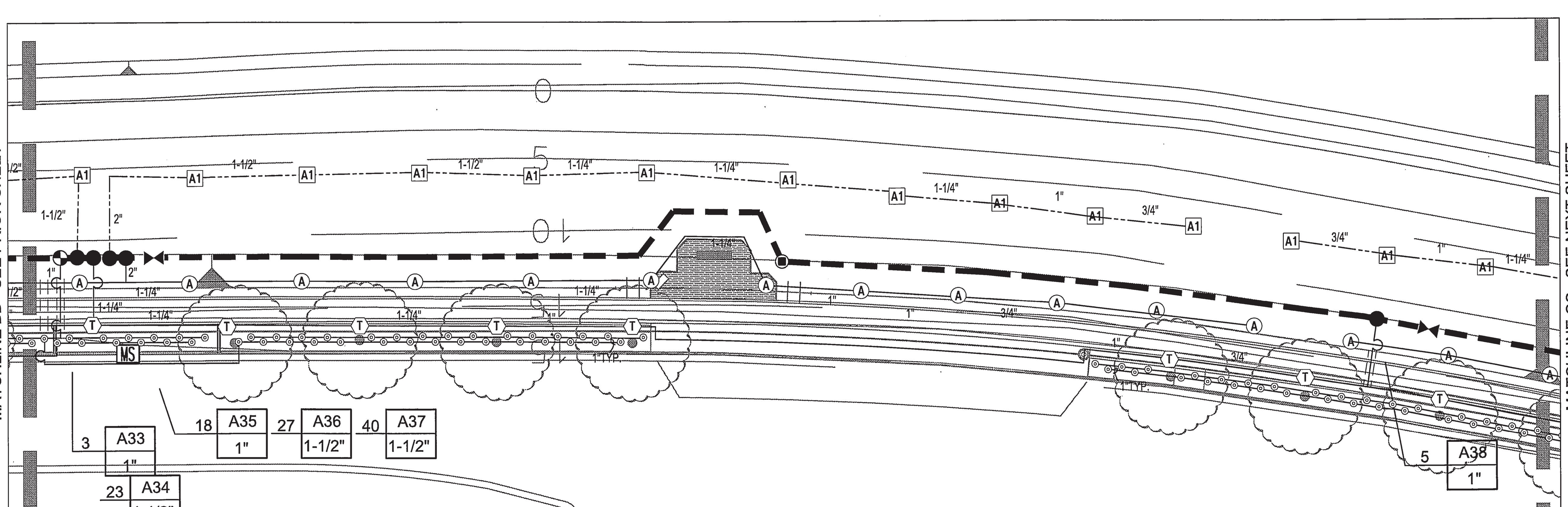

NORTH

0 10' 20' 40' 60'
GRAPHIC SCALE: 1"=20'

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DRAFTER	DESIGNER	CHECKER	CAD PROJECT FILE NAME	REVIEWED	DATE
CHRIS CURRY	CHRIS CURRY	ERIC VIADO	OXFORD IRR SHEETS.DWG	BY KHAI CHUNG	11/1/12

DATE	MK	DESCRIPTION

REVISIONS

LICENSED LANDSCAPE ARCHITECT — ERIC PAUL ARAMBULO VIADO — LICENSE NO. 5289 — STATE OF CALIFORNIA
SIGNATURE 2-28-14
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COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

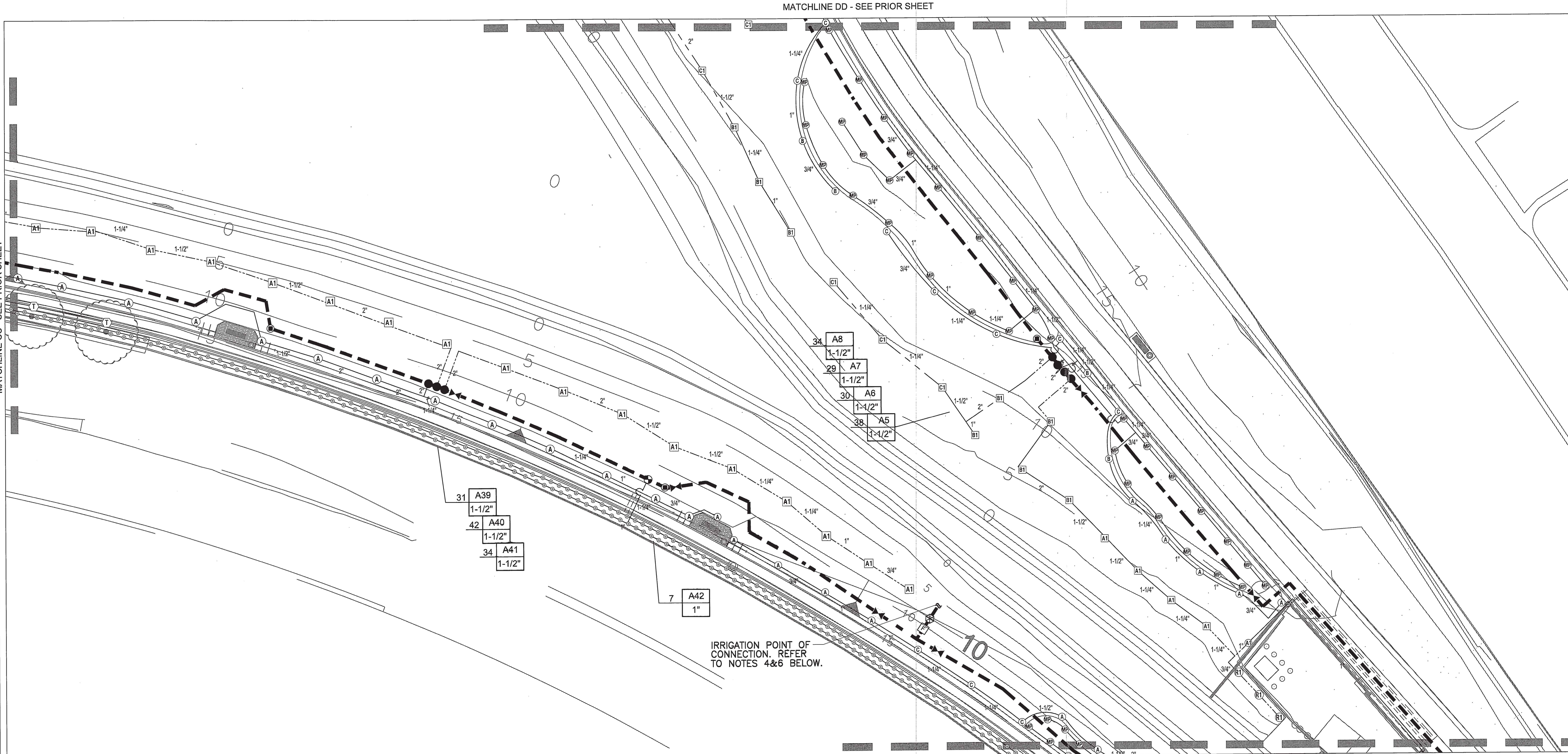
OXFORD RETENTION BASIN MULTIUSE ENHANCEMENT PROJECT

IRRIGATION PLAN

LS-3.3

PCA EF21507000 | WMD | SHEET 17 OF 27

MATCHLINE DD - SEE PRIOR SHEET



MATCHLINE EE - SEE NEXT SHEET

IRRIGATION NOTES:

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NORTH

0 10' 20' 40' 60'
GRAPHIC SCALE: 1"=20'

DATE	MK	DESCRIPTION

REVISIONS

LICENSED LANDSCAPE ARCHITECT — ERIC PAUL ARAMBULO VIADO — LICENSE NO. 5289 — STATE OF CALIFORNIA
SIGNATURE 2-28-14
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PROJECT LANDSCAPE ARCHITECT DATE

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COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

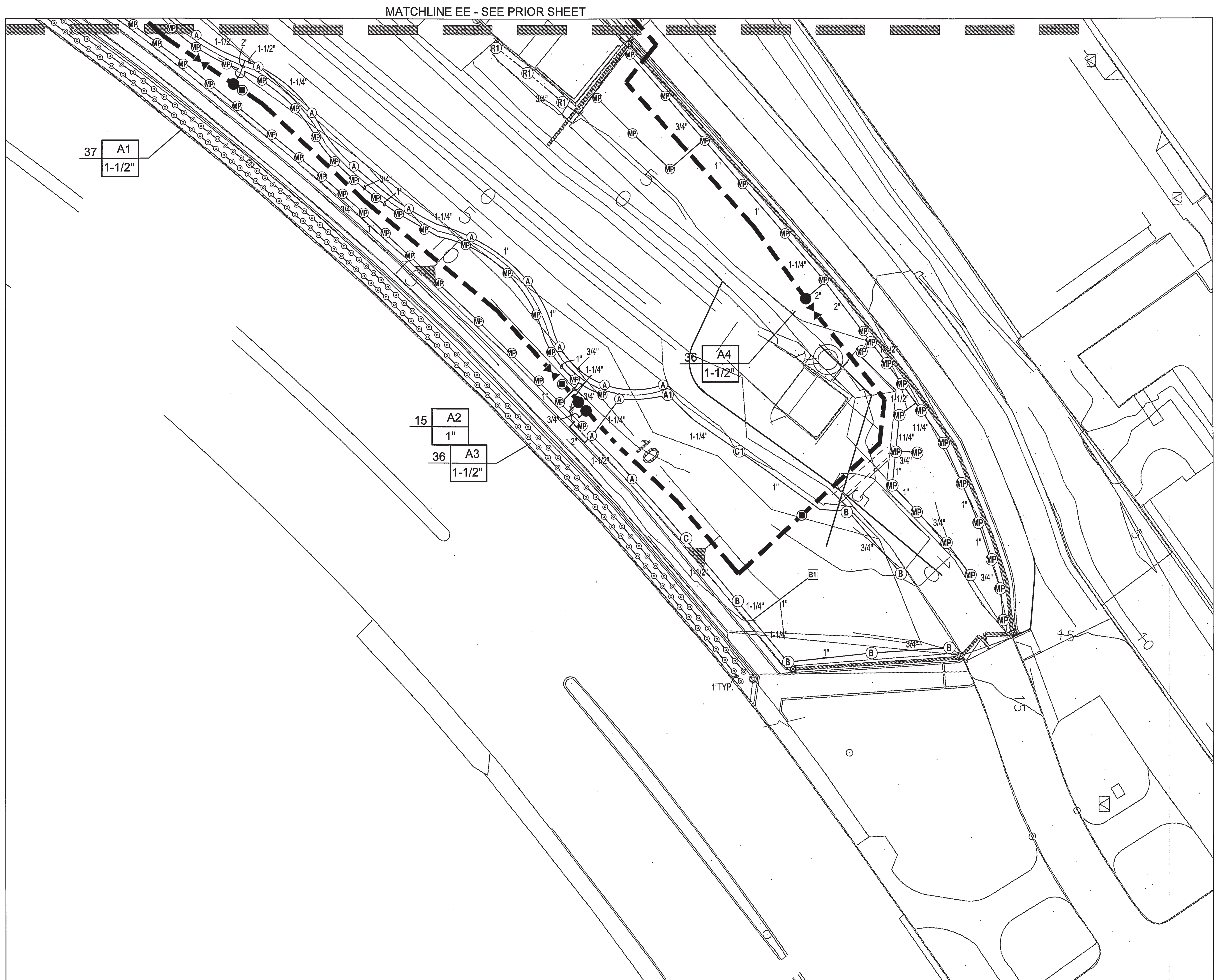
OXFORD RETENTION BASIN MULTIUSE ENHANCEMENT PROJECT

IRRIGATION PLAN

LS-3.4

PCA EF21507000 | WMD | SHEET 18 OF 27

DRAFTER CHRIS CURRY | DESIGNER CHRIS CURRY | CHECKER ERIC VIADO | CAD PROJECT FILE NAME OXFORD IRR SHEETS.DWG | REVIEWED BY KHAI CHUNG | DATE 11/1/12



NORTH

GRAPHIC SCALE: 1"=20'

0 10' 20' 40' 60'

IRRIGATION NOTES:

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REVISIONS

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PROJECT LANDSCAPE ARCHITECT DATE

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

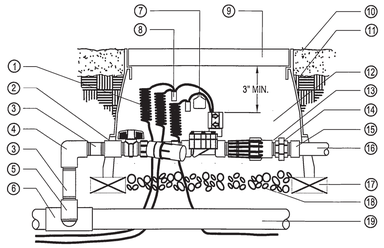
OXFORD RETENTION BASIN
MULTIUSE ENHANCEMENT PROJECT

IRRIGATION PLAN

LS-3.5

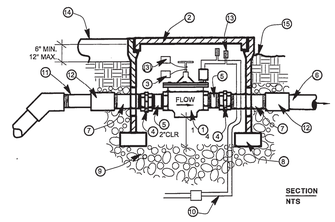
PCA EF21507000 | WMD | SHEET 19 OF 27

DRAFTER CHRIS CURRY
DESIGNER CHRIS CURRY
CHECKER ERIC VIADO
CAD PROJECT FILE NAME OXFORD IRR SHEETS.DWG
REVIEWED BY KHAI CHUNG
DATE 11/1/12



1. 30-INCH LINEAR LENGTH OF WIRE, COILED
2. PVC SCH 40 FEMALE COUPLING
3. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
4. PVC SCH 40 ELL
5. PVC SCH 80 NIPPLE (2" LENGTH HIDDEN) AND PVC SCH 40 ELL.
6. PVC SCH 40 TEE OR ELL
7. ID TAG
8. WATERPROOF WIRE CONNECTION (TYP.)
9. JUMBO VALVE BOX, SEE IRRIGATION SPECS. FOR BOX TOP HEIGHT ABOVE FINISH GRADE
10. MULCH OR DECOMPOSED GRANITE LAYER
11. FINISH GRADE
12. CONTROL ZONE KIT, SEE IRRIGATION LEGEND
13. PVC SCH 80 NIPPLE (CLOSE)
14. PVC SCH 80 UNION
15. PVC SCH 40 MALE ADAPTER
16. LATERAL LINE, SEE IRRIGATION SPECS. FOR PIPE DEPTH
17. BRICK, 1 @ EACH CORNER
18. 3/4" CRUSHED ROCK, 2" DEPTH. LEAVE 1"-2" AIR SPACE BETWEEN BOTTOM OF VALVE AND TOP OF GRAVEL
19. PVC MAINLINE, SEE IRRIGATION SPECS. FOR PIPE DEPTH

Ⓓ DRIP CONTROL ZONE KIT NTS



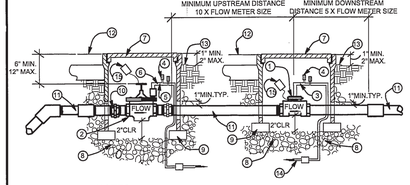
LEGEND:

1. ELECTRIC CONTROL VALVE. SEE SPECIAL PROVISIONS.
2. VALVE BOX-LID TO BE HINGED AND LOCKABLE
3. IDENTIFICATION TAG PER SPECIAL PROVISIONS. NUMBER TO MATCH DRAWINGS
4. UNION (TYP.)
5. PVC SCHEDULE 80 T.O.E. NIPPLE (THREADED TWO END)
6. PVC PIP TO IRRIGATION HEADS. ANGLE PIPE TO SPECIFIED DEPTH WITH 45 DEGREE ELBOWS
7. 6" BRASS THREAD NIPPLE.
8. COMMON RED BRICK, ONE AT EACH CORNER (4 REQUIRED) TYP.
9. 3/4" CRUSHED ROCK - 6" DEEP AND 2" CLEAR BELOW VALVE.
10. CONTROL COMMON WIRES FROM CONTROLLER.
11. PVC MAINLINE
12. PVC FEMALE ADAPTER (PVC PURPLE FEMALE ADAPTER)
13. WIRE CONNECTOR PER SPECIAL PROVISIONS TYP.
14. ADJACENT FINISH SURFACE OF PAVEMENT. TOP OF BOX TO BE FLUSH W/ PAVEMENT.
15. ADJACENT FINISH GRADE (TOP OF BOX TO BE 1" ABOVE GRADE FOR LAWN, 2" ABOVE GRADE FOR GROUND COVER/SHRUB AREA).

NOTES:

1. WHEN VALVE BOXES ARE CLUSTERED, PROVIDE 1' MIN. CLEARANCE BETWEEN BOXES.
2. PROVIDE VALVE WITH SEPARATE CONNECTION TO MAINLINE. INSTALL NO MULTIPLE ASSEMBLIES.
3. INSTALL VALVE BOX WITH HINGED COVER "OPENING TOWARD DOWNSTREAM OF VALVE IN ORDER TO PROVIDE ACCESS TO FLOW CONTROL FEATURE OF CONTROL VALVE.
4. ALL VERTICAL CHANGES IN MAINLINE PIPE DIRECTION SHALL BE DONE WITH THE USE OF 45 DEGREE ELBOWS.
5. INSTALL GALVANIZED WOVEN MESH (1/4" SIEVE SIZE) BETWEEN ROCK BOX AND CRUSHED ROCK. WRAP FABRIC UP SIDE OF BOX (3" MIN.).

Ⓒ REMOTE CONTROL VALVE NTS



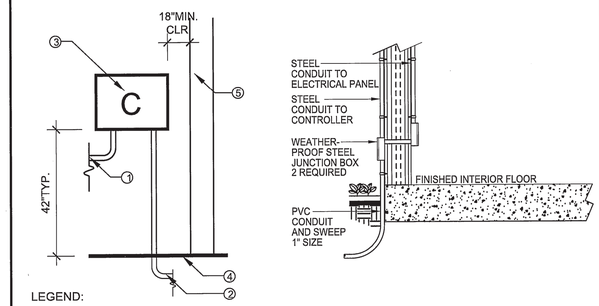
NOTES:

1. INSTALL FLOW METER AND MASTER VALVE PER MANUFACTURER'S RECOMMENDATIONS.
2. PROVIDE 2' EXPANSION LOOP AT EACH WIRE CONNECTION IN VALVE BOX AND CONTROL WIRES.
3. ALL PIPE FITTINGS SHALL BE PVC SCH. 80 UNLESS OTHERWISE NOTED.
4. TAPE DIRECT BURIAL WIRES IN BUNDLES EVERY 10'
5. WATERPROOF CONNECTORS SHALL BE EITHER 3M SCOTCHLOK CONNECTORS OR DRY SPLICE.
6. CRUSHED ROCK SHALL COVER VALVE BOX PIPE OPENINGS TO PREVENT SOIL ENTRY.

LEGEND:

1. FLOW METER
2. MASTER VALVE
3. SIGNAL CONDUCTOR CABLE. INCLUDE 30" EXPANSION LOOP. INSTALL CABLE 18" MIN. BELOW GRADE
4. WATERPROOF CONNECTORS FOR WIRES/CONDUCTORS (TYP.)
5. COMMON WIRE (WHITE)
6. CONTROL WIRE
7. VALVE BOX-LID TO BE HINGED AND LOCKABLE
8. 3/4" DIA. CRUSHED ROCK 8" DEEP (SEE SSP/WC SECTION 200-1.2)
9. COMMON RED BRICK, ONE AT EACH CORNER (4 REQUIRED) TYP.
10. UNION (TYP.)
11. PVC MAINLINE
12. ADJACENT FINISH SURFACE OF PAVEMENT. TOP OF BOX TO BE FLUSH W/PAVEMENT.
13. ADJACENT FINISH GRADE (TOP OF BOX TO BE 1" ABOVE GRADE FOR LAWN, 2" ABOVE GRADE FOR GROUND COVER/SHRUB AREA
14. WIRES TO AUTOMATIC IRRIGATION CONTROLLER

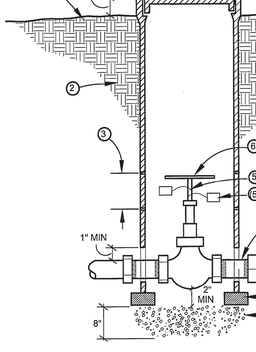
Ⓑ FLOW METER / MASTER VALVE NTS



LEGEND:

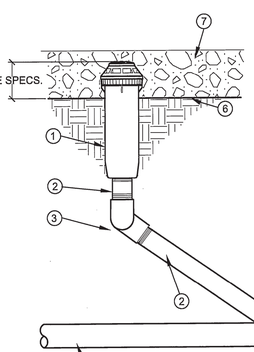
3. ELECTRICAL P.O.C. TO ELECTRICAL PANEL.
2. 1" DIA. SWEEP ELL FOR CONTROL WIRES PROVIDED
3. EXTERIOR WALL MOUNT CONTROLLER UNIT. REFER TO IRRIGATION LEGEND.
4. FINISH SURFACE
5. WALL

Ⓐ CONTROLLER - WALL MOUNT NTS



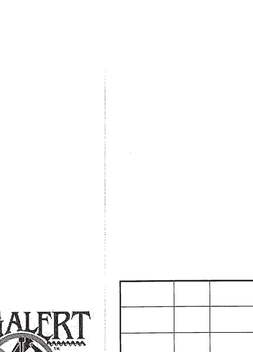
1. EXISTING REDUCED PRESSURE BACKFLOW PREVENTER
2. FINISH GRADE
3. STRONG BOX BACKFLOW ENCLOSURE MODEL #SBBC-45SS, CONTACT V.I.T. PRODUCTS (800) 729-1314. OR APPROVED EQUAL. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
4. 4" THICK CONCRETE PAD, SLOPE TOP AWAY FROM ENCLOSURE

Ⓗ ENCLOSURE FOR EXISTING BACKFLOW NTS



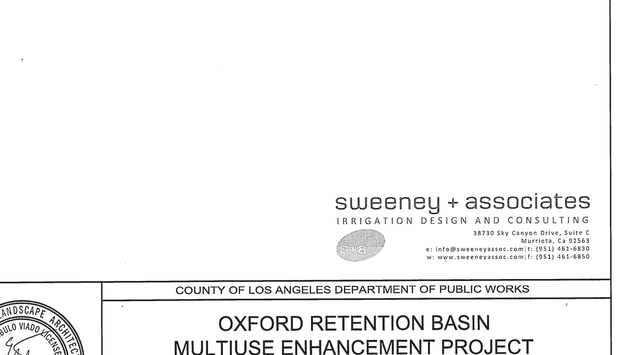
1. SPRAY HEAD OR SHRUB ROTOR
2. PA-8-PRS (SEE IRRIGATION SPECIFICATIONS)
3. UV RADIATION RESISTANT 8" PVC SCH 80 NIPPLE
4. UV RADIATION RESISTANT PVC LATERAL PIPE
5. PIPE STABILIZER AT 12' O.C. MIN. (V.I.T PRODUCTS INC. PS18 OR SS24)
6. FINISH GRADE
7. UV RADIATION RESISTANT PVC SCH 40 TEE OR ELL

Ⓖ ROTARY NOZZLE ON RISER NTS



1. SHRUB ROTOR
2. UV RADIATION RESISTANT PVC SCH 80 COUPLING
3. UV RADIATION RESISTANT PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
4. UV RADIATION RESISTANT PVC LATERAL PIPE
5. V.I.T. PS 18 OR SS24 PIPE STABILIZER @ 15' O.C. MINIMUM
6. FINISH GRADE/TOP OF MULCH
7. UV RADIATION RESISTANT PVC SCH 40 TEE OR ELL
8. PVC SCH 40 STREET ELL

Ⓕ ROTOR ON RISER NTS



LEGEND:

1. VALVE BOX-LID TO BE HINGED AND LOCKABLE
2. QUICK COUPLING VALVE 33-DRC
3. SCHEDULE 80 PVC - LENGTH AS REQUIRED.
4. SCHEDULE 40 PVC TRIPLE SWING JOINT
5. SCHEDULE 80 PVC NIPPLE - 6" MINIMUM, 12" MAXIMUM LENGTH.
6. PVC MAINLINE
7. PVC SCHEDULE 80 T.O.E. (THREADED ONE END NIPPLE - 2" LENGTH)
8. SCHEDULE 80 PVC THREADED ELBOW
9. PVC SCHEDULE 40 SLIP TEE.
10. STAINLESS STEEL COMPRESSION CLAMP (2 REQUIRED).
11. 24" MINIMUM LENGTH #4 REBAR STAKE. SECURE AT BODY ONLY
12. 3/4" CRUSHED ROCK - 8" DEEP.
13. COMMON BRICK, ONE AT EACH CORNER (4 REQUIRED) TYP.
14. CURB, WALK OR OTHER HARDSCAPE FEATURE.

NOTE:

1. VALVE BOX TO BE SET SQUARE AND FLUSH NEXT TO CURB OR SIDEWALK.
2. FOR NON-HARDSCAPE AREAS, SET TOP OF VALVE BOX 2" ABOVE FINISH GRADE.

Ⓔ QUICK COUPLER NTS

LEGEND:

1. FINISH GRADE
2. COMPACTED SUBGRADE
3. BREAK-OFF GROVES 3 PLACES - 4" TYP.
4. VALVE BOX-LID TO BE HINGED AND LOCKABLE
5. IDENTIFICATION TAG PER SPECIAL PROVISIONS. NUMBER TO MATCH DRAWINGS
6. GATE VALVE W/ HANDWHEEL LINE SIZE
7. SCH. 80 P.V.C. NIPPLES, TYP.
8. PVC MAINLINE
9. 3/4" CRUSHED ROCK 8" DEPTH
10. COMMMON RED BRICK, ONE AT EACH CORNER (4 REQUIRED)

NOTES: FOR 2 1/2 " OR LARGER GATE VALVE, USE CAST IRON FLANGE ADAPTOR BETWEEN G.V.& P.V.C. SUPPLY.

Ⓙ GATE VALVE NTS

LEGEND:

1. POP-UP SPRINKLER
2. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED).
3. PVC SCH 80 ELL. TRIPLE SWING JOINT
4. PVC SCH 80 RISER ASSEMBLY (SEE NOTES BELOW).
5. PVC LATERAL PIPE
6. FINISH GRADE.
7. MULCH, WHERE OCCURS.

Ⓘ POP UP ROTOR NTS

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COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN MULTIUSE ENHANCEMENT PROJECT

IRRIGATION DETAILS

LS-3.6

	PCA EF21507000	WMD	SHEET 20 OF 27

DRAFTER CHRIS CURRY
DESIGNER CHRIS CURRY
CHECKER ERIC VIADO
CAD PROJECT FILE NAME OXFORD IRR SHEETS.DWG
REVIEWED BY KHAI CHUNG
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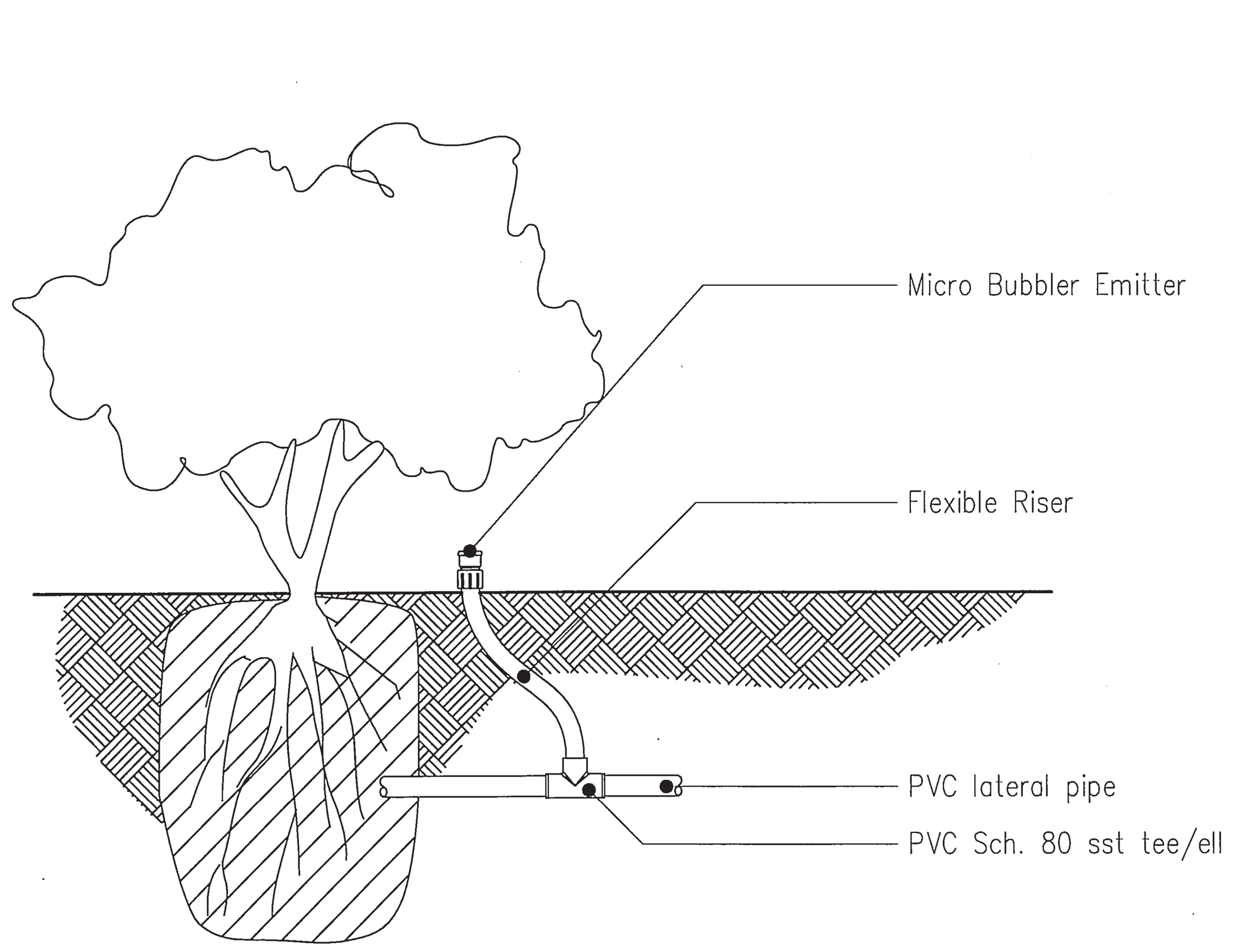
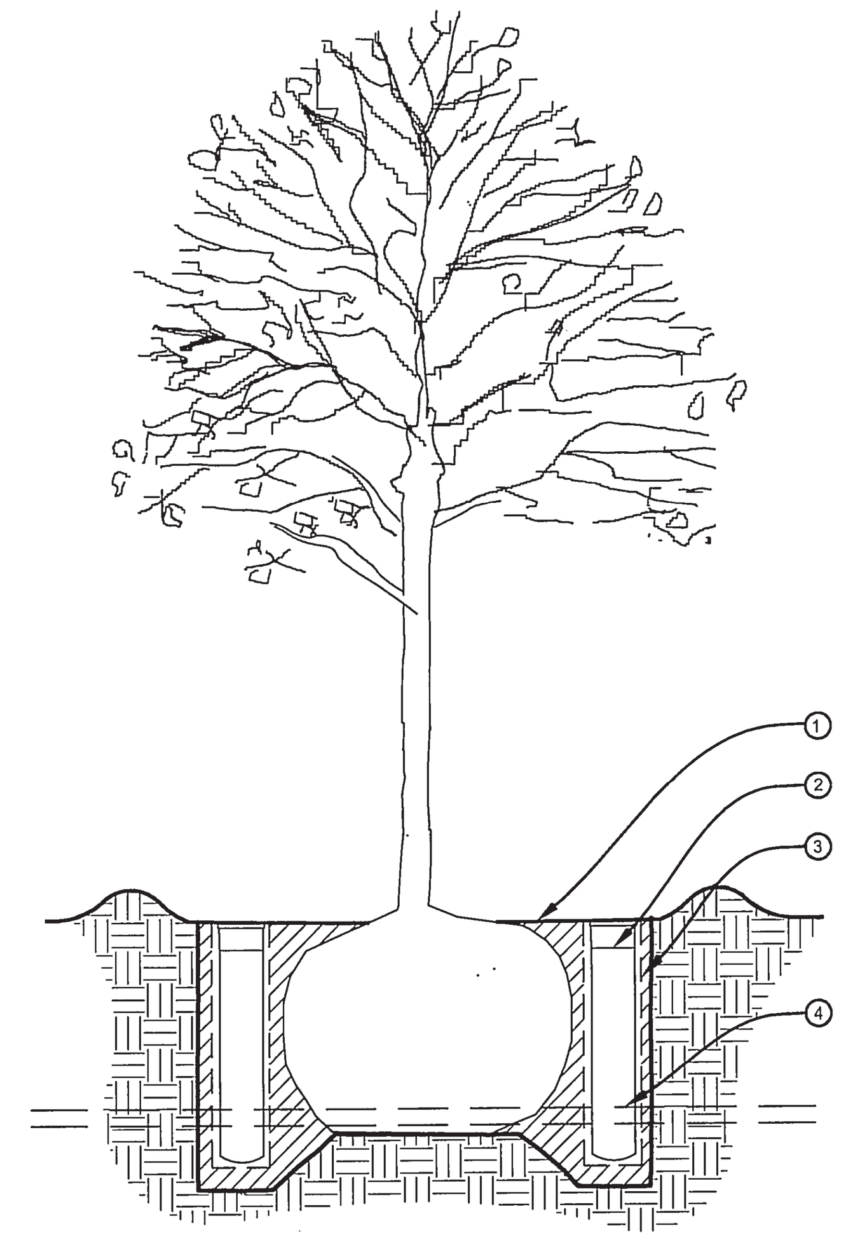


(N) DRIP EMITTER ON FLEX RISER NTS

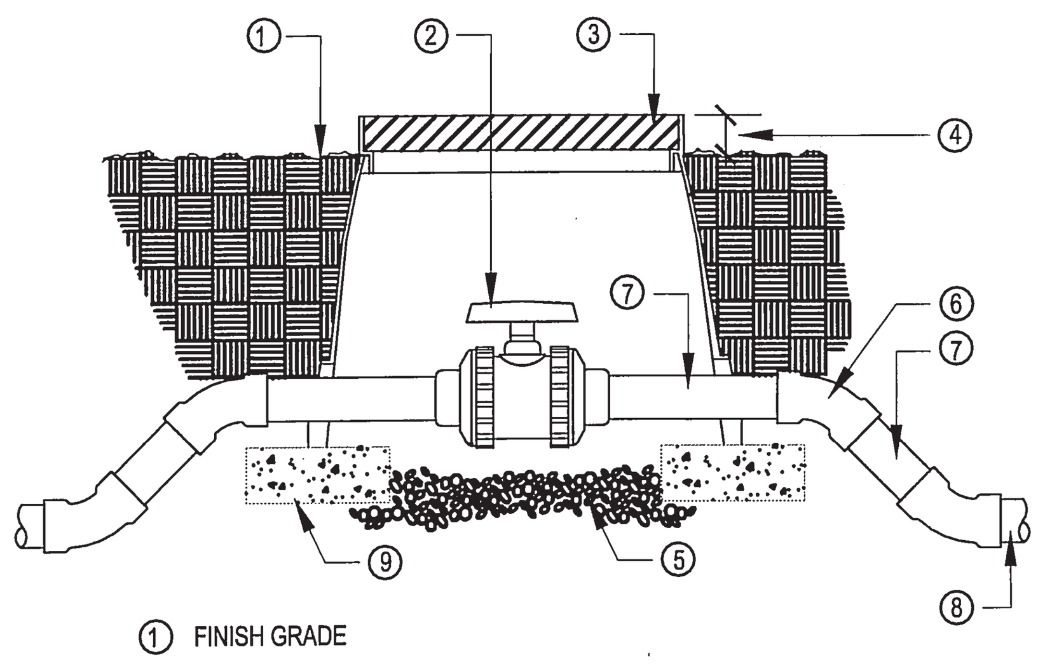


NOTES:

1. FINISH GRADE
2. ROOT WATERING SYSTEM BY RAINBIRD OR EQUAL USE RWS-M-BCG FOR 15 GAL TO 24" BOX TREE
3. LANDSCAPE FABRIC FOR SANDY SOILS
4. LATERAL LINE

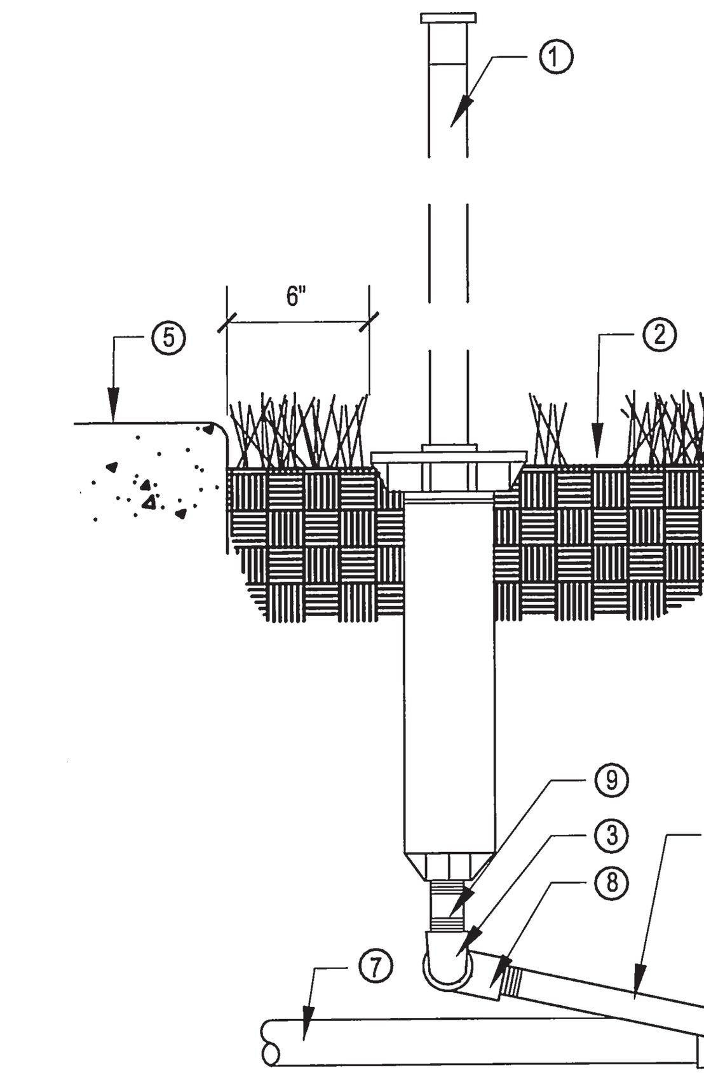
NOTES:
1. USE 2 UNITS PER TREE
2. POSITION UNITS EVENLY SPACED AROUND ROOT BALL
3. SET TOP OF CAP 1" ABOVE FINISH GRADE
4. USE PURPLE CAP FOR NON-POTABLE WATER

(M) ROOT WATERING SYSTEM NTS



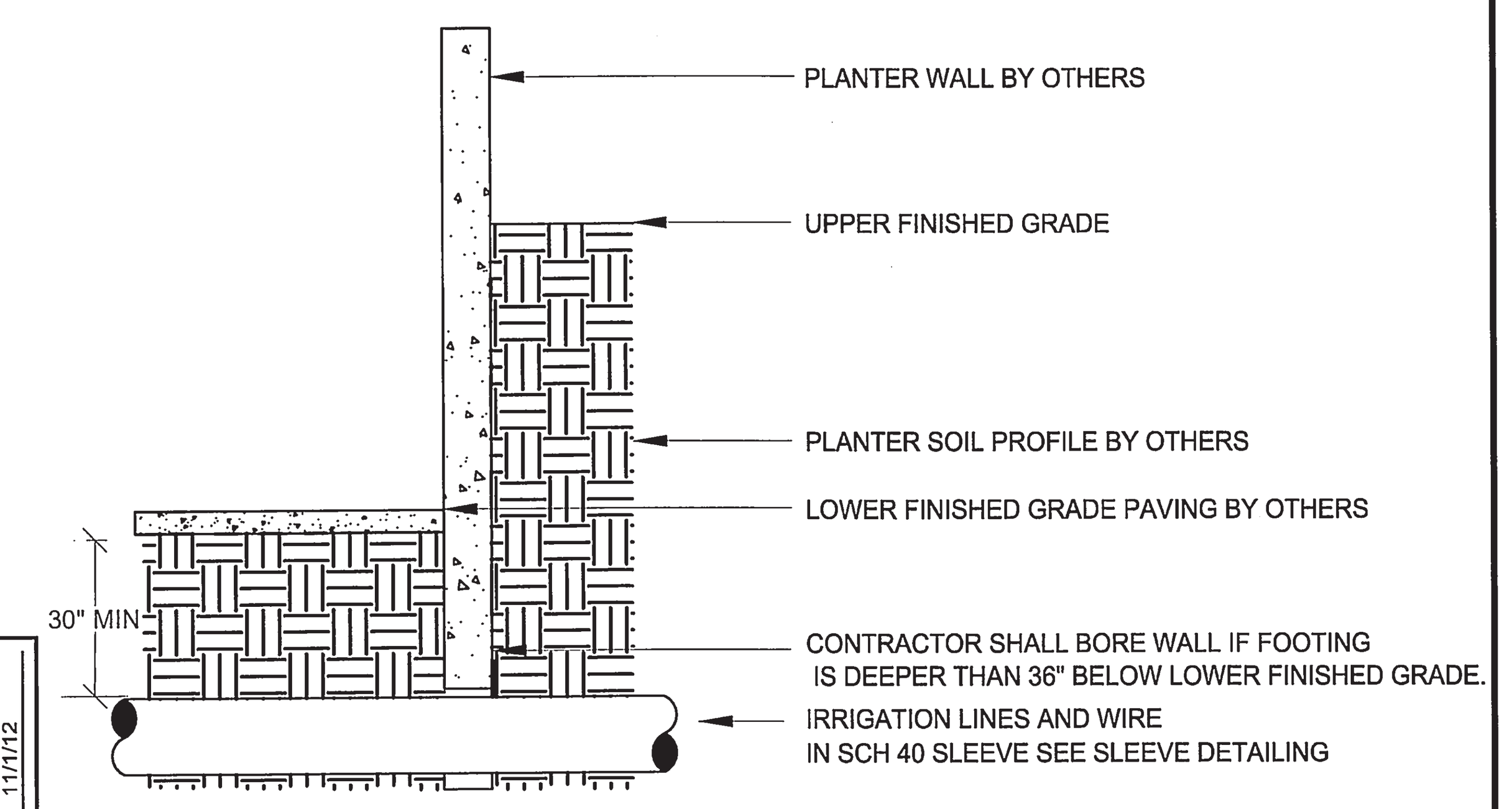
1. FINISH GRADE
2. BLOCKED TRUE UNION BALL VALVE
3. VALVE BOX - SEE IRRIGATION SPECS.
4. VARIES - SEE IRRIGATION SPECS. FOR BOX TOP HEIGHT
5. 3/4" CRUSHED ROCK, 2" DEPTH. LEAVE 1"-2" AIR SPACE BETWEEN BOTTOM OF VALVE AND TOP OF PEA GRAVEL.
6. PVC 45 ELL
7. PVC NIPPLE
8. PVC MAINLINE - SEE IRRIGATION SPECS. FOR PIPE DEPTH
9. BRICK VALVE BOX SUPPORTS (2 MIN.)

(L) BALL VALVE NTS



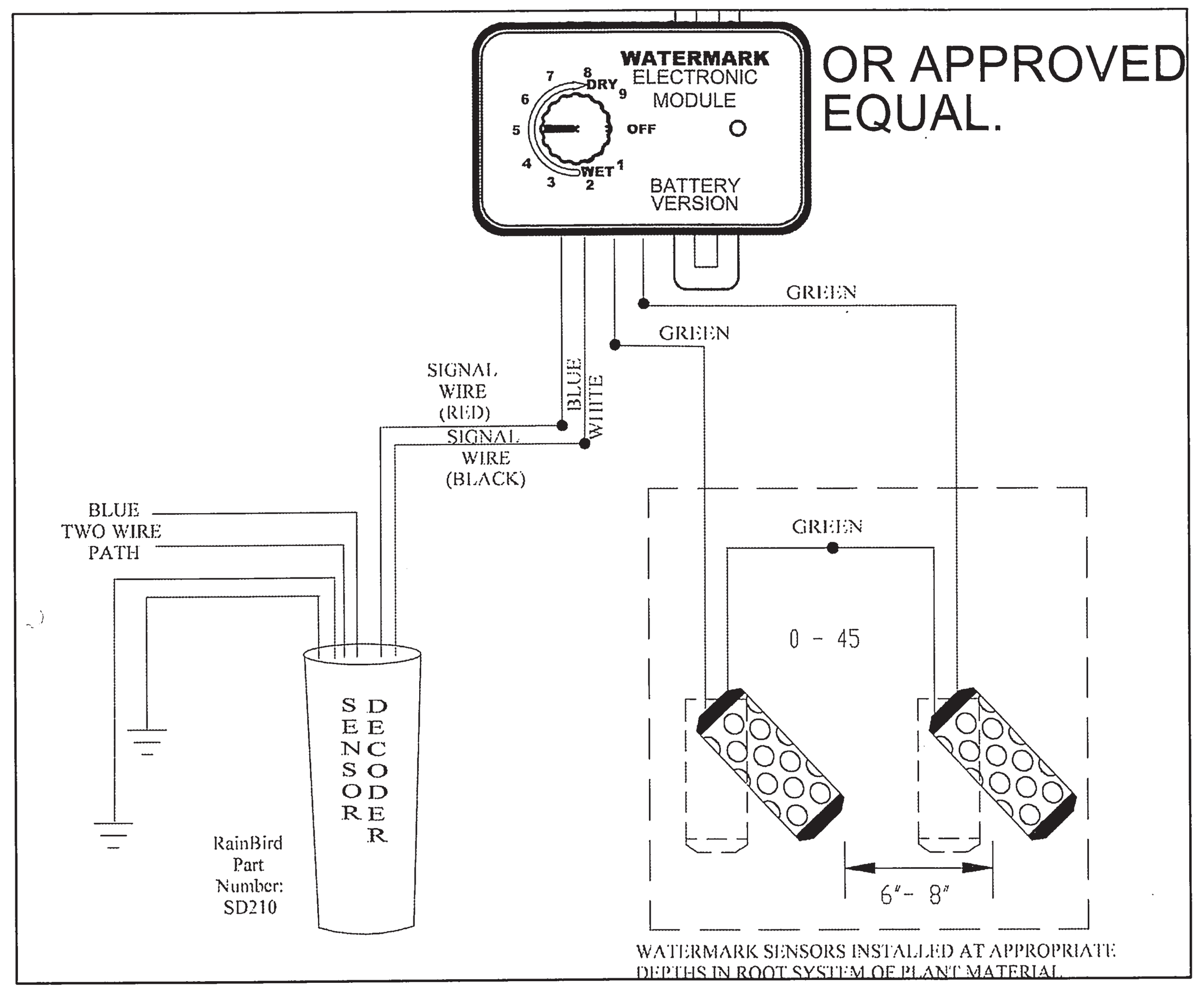
1. POP-UP SHRUB HEAD
2. FINISH GRADE
3. SCH.40 STREET ELL' TRIPLE SWING JOINT
4. 6" SCH 80 PVC NIPPLE THREADED BOTH ENDS
5. WALK OR CURB
6. PVC SCH 40 TEE OR ELL
7. PVC LATERAL LINE
8. 90 DEGREE ELL
9. 2" SCH 80 PVC NIPPLE THREADED BOTH ENDS

(K) POP-UP W/ROTARY NOZZLE NTS

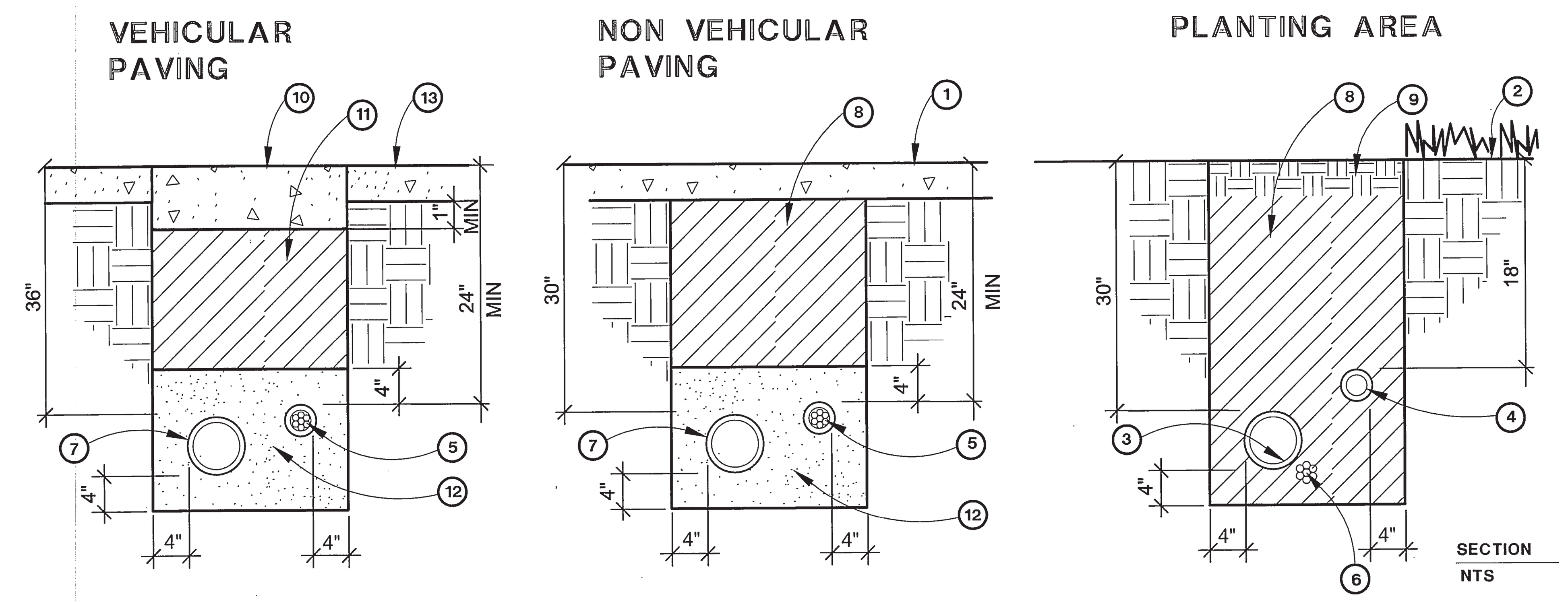


THIS DETAIL IS ONLY FOR WALLS DEEPER THAN 36" BELOW LOWER FINISHED GRADE. IF THE WALL IS LESS THAN 36" DEEP BELOW LOWER FINISHED GRADE THEN THE CONTRACTOR SHALL TUNNEL ALL IRRIGATION SLEEVES UNDER THE WALL.

(P) SLEEVE THROUGH WALLS NTS



(O) MOISTURE SENSOR



LEGEND:

1. PAVING
2. FINISH GRADE
3. PVC MAINLINE
4. PVC LATERAL LINE
5. CONTROL WIRES OR COM. CABLE IN CONDUIT
6. CONTROL WIRES OR COM. CABLE
7. SLEEVE FOR MAINLINE AND/OR LATERAL LINE
8. FINE GRANULAR BACKFILL (1/2" MAX. DIA.)
9. TOPSOIL
10. AC PAVEMENT (C2-PG 64-10) OR PCC. (560-C-3250) THICKNESS TO MATCH EXISTING PAVEMENT PLUS 1". MINIMUM THICKNESS SHALL BE 4".
11. TRENCH BACKFILL SLURRY (270-E-500)
12. SAND
13. EXISTING AC OR PCC PAVEMENT

NOTES:

1. TAPE AND BUNDLE 24 V. WIRES @ 10' INTERVALS.
2. MINIMUM DEPTH OF 24 V. WIRING SHALL BE 24" BELOW GRADE.
3. TRENCH WIDTH ALLOW 4" MIN. CLEARANCE BETWEEN PARALLEL PIPES.
4. SNAKE PIPES FROM SIDE TO SIDE WITHIN TRENCH TO ALLOW FOR MOVEMENT.
5. TIE A 20" LOOP IN ALL WIRING AT CHANGES OF DIRECTION. UNTIE PRIOR TO BACKFILLING TRENCHES.
6. PROVIDE THRUST BLOCKS PER APWA STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION DETAIL 508-1, EXCEPT THAT THRUST BLOCKS SHALL BE PROVIDED FOR ALL PIPES 2" AND LARGER.

(Q) PIPE TRENCHING NTS

sweeney + associates
IRRIGATION DESIGN AND CONSULTING
38730 Sky Canyon Drive, Suite C
Murrieta, Ca 92563
e: info@sweeneyassoc.com | t: (951) 461-6830
w: www.sweeneyassoc.com | f: (951) 461-6850

DIGALERT
CALL 8-1-1 TOLL FREE
2 workings days before you dig

DATE	MK	DESCRIPTION

REVISIONS

LICENSED LANDSCAPE ARCHITECT — ERIC PAUL ARAMBULO VIADO — LICENSE NO. 5289 — STATE OF CALIFORNIA — SIGNATURE 6-28-14 — RENEWAL DATE 11/30/12 — DATE

PROJECT LANDSCAPE ARCHITECT DATE

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN MULTIUSE ENHANCEMENT PROJECT

IRRIGATION DETAILS

LS-3.7

PCA EF21507000	WMD	SHEET 21 OF 27

DATE	REVIEWED	CAD PROJECT FILE NAME	CHECKER	DESIGNER	DRAFTER
11/1/12	BY KHAI CHUNG	OXFORD IRR SHEETS.DWG	ERIC VIADO	CHRIS CURRY	CHRIS CURRY

GENERAL PLANTING NOTES:

1. PLANT QUANTITIES IN LEGEND ARE FOR CONTRACTOR'S CONVENIENCE ONLY. OTHER THAN CONTRACT GROWN PLANT MATERIAL, CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL PLANTS SHOWN ON PLANTING PLANS.
2. ALL TREES ARE TO BE PLANTED MIN. 20' FROM EXISTING POWER POLES (WHERE APPLICABLE).
3. CONTRACTOR SHALL PROVIDE 3" DEEP LAYERS OF MEDIUM TO FINE TEXTURED (3/4" TO 2") GROUND WOOD BY-PRODUCT OR SHREDDED BARK MULCH TO ALL NON-PAVED AREAS. COLOR OF MULCH SHALL BE DARK.
4. PLANS ARE DIAGRAMMATIC. THE CONTRACTOR SHALL BRING TO THE ATTENTION OF THE ENGINEER ANY PERCEIVED DISCREPANCY BEFORE THE START OF CONSTRUCTION.
5. SOIL SHALL BE REPLACED PER PLANTING POCKET. EXCAVATED EXISTING SOIL SHALL BE REMOVED FROM THE SITE AND DISPOSED OF PROPERLY. CONTRACTOR SHALL PROVIDE AND INSTALL IMPORTED TOPSOIL TO FILL IN EXCAVATED AREAS WHERE PLANTINGS ARE PROPOSED. IMPORTED TOPSOIL SHALL CONFORM TO SECTION L, LANDSCAPE OF SPECIAL PROVISIONS. AN AGRONOMICAL SOIL'S REPORT SHALL BE SUBMITTED PER 1.02-2 OF THE SAME SECTION, REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO THE DELIVERY OF THE SOIL ON SITE.
6. ANY SOIL PREPARATION AND PLANTING WITHIN THE DRIP LINE OF THE EXISTING TREES SHALL BE DONE BY HAND.

PLANTING LEGEND

ID	SYMBOL	BOTANICAL NAME / COMMON NAME	SIZE	QTY	SPACING/ REMARKS	WATER USE	PLANTING POCKET DIA./ DEPTH
		TREES					
		ARBUTUS 'MARINA' / STRAWBERRY TREE	24" BOX	16	STANDARD	L	48"/36"
		QUERCUS AGRIFOLIA / COAST LIVE OAK	24" BOX	13	STANDARD	L	48"/36"
		UMBELLULARIA CALIFORNICA / CALIFORNIA LAUREL	24" BOX	3	STANDARD	L	48"/36"
		EXISTING TREES TO REMAIN					
		SHRUBS, VINES & GROUNDCOVERS					
SALT MIX		COASTAL SALT MARSH MIX: [SEE PLANT LEGEND NOTE (**)] (*PROVIDED BY DPW)					
		[15% BY AREA, 312 PLANTS PER 1,000 S.F.] SPERGULARIA MARINA / SAND MARSH SPURRY	4" POT	11,157	9" O.C.	NA	12"/24"
		[30% BY AREA, 21 PLANTS PER 1,000 S.F.] DISTICHLIS SPICATA / SALTGRASS (**)	1 GAL.	779	48" O.C.	NA	24"/36"
		[30% BY AREA, 153 PLANTS PER 1,000 S.F.] SALICORNIA VIRGINICA / COMMON PICKLEWEED (**)	4" POT	5463	18" O.C.	NA	12"/24"
		[15% BY AREA, 312 PLANTS PER 1,000 S.F.] FRANKENIA SALINA / ALKALI HEATH	4" POT	11,157	9" O.C.	NA	12"/24"
		[10% BY AREA, 7 PLANTS PER 1,000 S.F.] JUNCUS ACUTUS LEOPOLDI / SOUTHWEST SPINY RUSH	1 GAL.	250	48" O.C.	M	24"/36"
SAGE MIX		COASTAL SAGE & BLUFF SCRUB MIX: (*PROVIDED BY DPW)					
		[15% BY AREA, 11 PLANTS PER 1,000 S.F.] ARTEMISIA CALIFORNICA / CALIFORNIA SAGEBRUSH	1 GAL.	987	48" O.C.	L	24"/36"
		20% BY AREA, 14 PLANTS PER 1,000 S.F.] ENCELIA CALIFORNICA / CALIFORNIA ENCELIA	1 GAL.	1256	48" O.C.	VL	24"/36"
		[15% BY AREA, 44 PLANTS PER 1,000 S.F.] ERIOGONUM PARVIFOLIUM / SEACLIFF BUCKWHEAT	1 GAL.	3946	24" O.C.	VL	18"/36"
		20% BY AREA, 14 PLANTS PER 1,000 S.F.] ERIOGONUM FASCICULATUM / CAL. BUCKWHEAT	1 GAL.	1256	48" O.C.	VL	24"/36"
		[15% BY AREA, 44 PLANTS PER 1,000 S.F.] NASSELLA PULCHRA / PURPLE NEEDLEGRASS	1 GAL.	3946	24" O.C.	VL	18"/36"
		[15% BY AREA, 3 PLANTS PER 1,000 S.F.] RHUS INTEGRIFOLIA / LEMONADE BERRY	5 GAL.	269	(96")8'O.C.	VL	36"/36"
PRAI MIX		COASTAL PRAIRIE MIX: (*PROVIDED BY DPW)					
		[35% BY AREA, 46 PLANTS PER 1,000 S.F.] ISOCOMA MENZIESII / COASTAL GOLDENBUSH	1 GAL.	193	36" O.C.	VL	24"/36"
		[50% BY AREA, 145 PLANTS PER 1,000 S.F.] NASSELLA PULCHRA / PURPLE NEEDLE GRASS	1 GAL.	606	24" O.C.	VL	18"/36"
		[15% BY AREA, 312 PLANTS PER 1,000 S.F.] SISYRINCHIUM BELLUM / BLUE EYED GRASS	1 GAL.	1303	9" O.C.	L	12"/24"
SCRN MIX		SCREENING MIX: [SEE PLANT LEGEND NOTE (***)] (*PROVIDED BY DPW)					
		[30% BY AREA, 6 PLANTS PER 1,000 S.F.] BACCHARIS SALICIFOLIA / MULEFAT	5 GAL.	145	(96")8'O.C.	M	36"/36"
		[5% BY AREA, 4 PLANTS PER 1,000 S.F.] ROSA CALIFORNICA / WILD ROSE	5 GAL.	97	48"O.C.	L	24"/36"
		[5% BY AREA, 4 PLANTS PER 1,000 S.F.] RUBUS URSINUS / CALIFORNIA BLACKBERRY	5 GAL.	96	48"O.C.	L	24"/36"
		[20% BY AREA, 4 PLANTS PER 1,000 S.F.] SAMBUCUS MEXICANA / BLUE ELDERBERRRY	15 GAL.	97	(96")8'O.C.	M	36"/36"
		[30% BY AREA, 6 PLANTS PER 1,000 S.F.] SALIX EXIGUA / NARROWLEAF WILLOW	15 GAL.	145	(96")8'O.C.	M	36"/36"
		[10% BY AREA, 7 PLANTS PER 1,000 S.F.] VITIS GIRDIANA / DESERT GRAPE (***)	5 GAL.	169	48"O.C.	L	24"/36"

PLANTING LEGEND CONTINUED

ID	SYMBOL	BOTANICAL NAME / COMMON NAME	SIZE	QTY	SPACING/ REMARKS	WATER USE	PLANTING POCKET DIA./ DEPTH
SWAL MIX		GRASSY SWALE MIX: (*PROVIDED BY DPW)					
		[35% BY AREA, 24 PLANTS PER 1,000 S.F.] DISTICHLIS SPICATA / SALTGRASS	1 GAL.	101	48" O.C.	NA	24"/36"
		[35% BY AREA, 24 PLANTS PER 1,000 S.F.] JUNCUS ACUTUS / SPINY RUSH	1 GAL.	101	48" O.C.	M	24"/36"
		[30% BY AREA, 39 PLANTS PER 1,000 S.F.] CAREX BARBARAE / SANTA BARBARA SEDGE	1 GAL.	164	36" O.C.	M	24"/36"
		ORNAMENTAL MIX:					
ARC HOO	A	ARCTOSTAPHYLOS HOOKERI / MONTEREY MANZANITA	5 GAL.	36	4' O.C.	L	24"/36"
CEA EBB	C	CEANOTHUS 'EBBET'S FIELD' / DWARF WILD LILAC	5 GAL.	144	3' O.C.	L	24"/36"
LIM CAL	L	LIMONIUM CALIFORNICA / SEA LAVENDER	1 GAL.	220	3' O.C.	L	24"/36"
SAL SPA	S	SALVIA SPATHACEA / HUMMINGBIRD SAGE	1 GAL.	99	3' O.C.	L	24"/36"
COR MAR		COREOPSIS MARITIMA / SEA DAHLIA	1 GAL.	150	2' O.C.	L	18"/36"
VER LIL		VERBENA LILACINA "DE LA MINA" / CEDROS ISLAND VERBENA	1 GAL.	133	3' O.C.	L	24"/36"
ERI KAR	Y	ERIGERON KARVINSKIANUS/ SANTA BARBARA DAISY	1 GAL.	50	3' O.C.	M	24"/36"
JUS BRA	G	JUSTICIA BRANDEGEANA / SHRIMP PLANT	1 GAL.	43	3' O.C.	M	24"/36"
FES CAL		FESTUCA CALIFORNICA / CALIFORNIA FESCUE	1 GAL.	315	18" O.C.	M	12"/24"
IRI DOU		IRIS DOUGLASIANA / DOUGLAS IRIS	1 GAL.	100	18" O.C.	M	12"/24"
HEU MAX	H	HEUCHERA MAXIMA / ISLAND ALUM ROOT	1 GAL.	54	3' O.C.	M	24"/36"
RHU INT		RHUS INTEGRIFOLIA / LEMONADE BERRY	5 GAL.	12	(96")8'O.C.	VL	36"/36"
		MULCH AROUND EXISTING PLANTS					

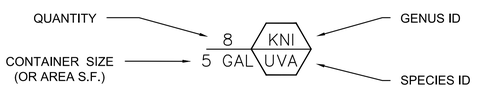
PLANT LEGEND NOTES:

(*PURCHASED AND PROVIDED BY DPW) - PLANTS LISTED UNDER "COASTAL SALT MARSH MIX, COASTAL SAGE & BLUFF SCRUB MIX, COASTAL PRAIRIE MIX, SCREENING MIX, AND GRASSY SWALE MIX," WILL BE PRE-ORDERED BY THE COUNTY UNDER SEPARATE CONTRACT. CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING PLANTS LISTED IN THE CATEGORIES "TREES" AND "ORNAMENTAL MIX"

(**) - ELEVATION FOR COASTAL SALT MARSH MIX AREA IS TO BE BETWEEN +O' MSL AND +3' MSL. SALICORNIA VIRGINICA / COMMON PICKLEWEED IS TO BE LIMITED TO THE MIDDLE ZONE (+1' MSL TO +2' MSL) WITHIN THE COASTAL SALT MARSH AREA. DISTICHLIS SPICATA / SALTGRASS IS TO BE LIMITED TO THE UPPER THIRD (+2' MSL TO +3' MSL) WITHIN THE COASTAL SALT MARSH AREA.

(***) - LIMIT VITIS GIRDIANA / DESERT GRAPE TO FENCE LINES IN THE SCREENING MIX AREAS. SUPPLY SUPPORT TIES AS NECESSARY.

PLANT CALLOUT KEY:



PLAN LS

DIGALERT
CALL 8-1-1 TOLL FREE
2 workings days before you dig

DATE	MK	DESCRIPTION
		REVISIONS

STEPHEN ZUREK — REGISTERED LANDSCAPE ARCHITECT — 3717 — 1-14-13 — STATE OF CALIFORNIA
PROJECT LANDSCAPE ARCHITECT

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN
MULTI-USE ENHANCEMENT PROJECT

PLANTING LEGEND & NOTES

LS-4.0

FCC0001176	PCA EF21507000		SHEET 22 OF 27

WASHINGTON BLVD.

86 FES 1 GAL CAL

86 FES 1 GAL CAL

120 COR 1 GAL MAR

56 SAL 1 GAL SPA

22 ARC 5 GAL HOO

27 HEU 1 GAL MAX

50 IRI 1 GAL DOU

(14,568 S.F.) SALT MIX

(16,947 S.F.) SAGE MIX

9 QUE 24" B AGR

74 COR 1 GAL MAR

36 SAL 1 GAL SPA

14 ARC 5 GAL HOO

27 MAX 1 GAL UVA

50 IRI 1 GAL DOU

SANITARY SEWER

(1,684 S.F.) PRAI MIX

(2,492 S.F.) PRAI MIX

MATCHLINE AA - SEE NEXT SHEET

(4692 S.F.) SALT MIX

1 QUE 24" B AGR

(904 S.F.) SCRN MIX

(1,273 S.F.) SCRN MIX

EXISTING TREES TO REMAIN

REFER TO SHEET LS-4.3 FOR S.F. & QTY THIS STRIP OF SALT MIX

REFER TO SHEET LS-4.3 FOR S.F. & QTY THIS STRIP OF SAGE MIX

7 SAL 1 GAL SPA

4 RHU 5 GAL INT

9 JUS 1 GAL BRA

21 JUS 1 GAL BRA

4 ARB 24" B MAR

40 LIM 1 GAL PER

BIOSWALE, REFER TO PLAN D

MATCHLINE BB - SEE NEXT SHEET

ADMIRALTY WAY

NORTH

0 10' 20' 40' 60'

GRAPHIC SCALE: 1"=20'

PLAN LS

DIGALERT

CALL 8-1-1 TOLL FREE

2 workings days before you dig

DATE	MK	DESCRIPTION
		REVISIONS

REGISTERED LANDSCAPE ARCHITECT STEPHEN ZUREK 3217 1-14-13 STATE OF CALIFORNIA

PROJECT LANDSCAPE ARCHITECT

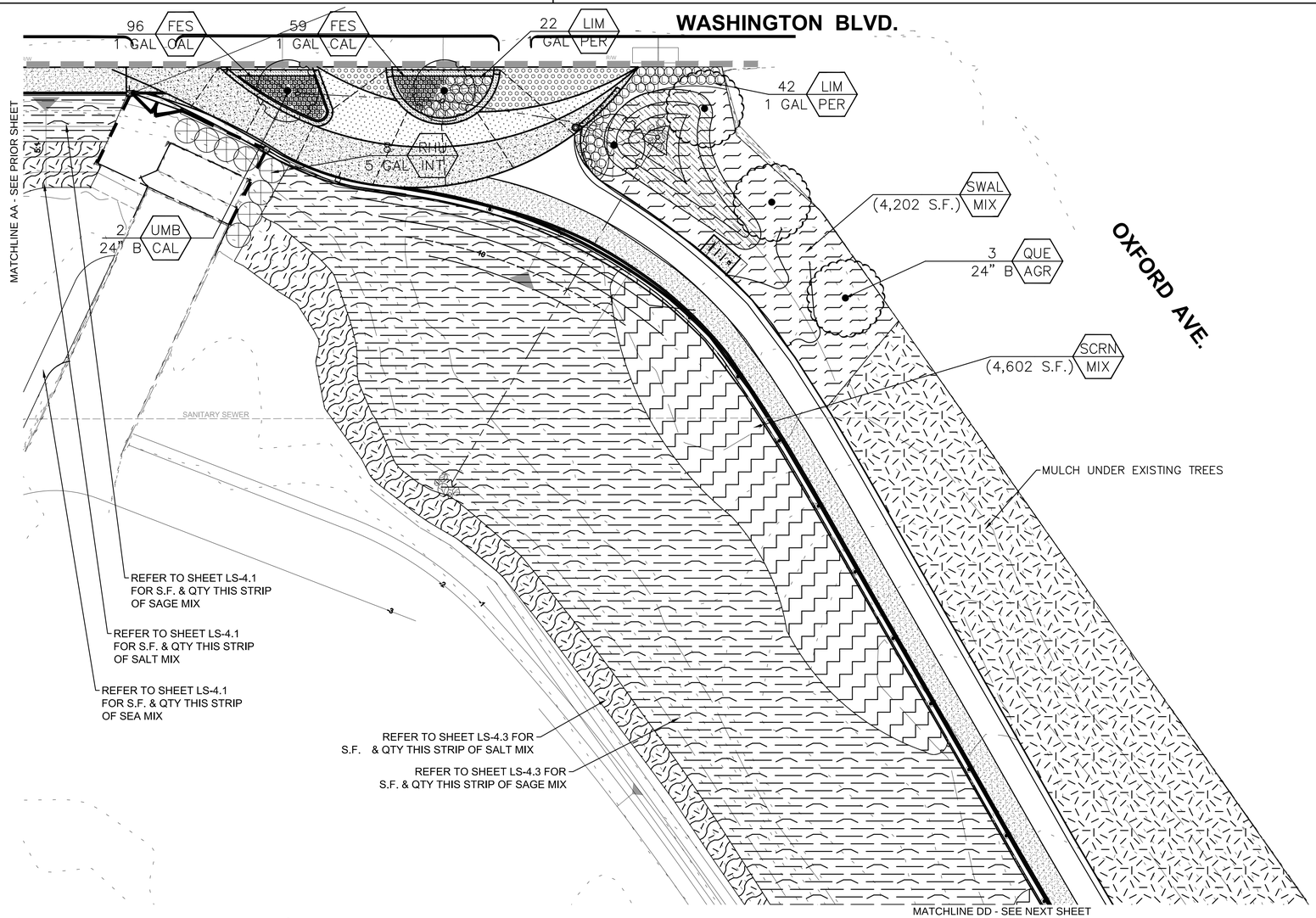
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

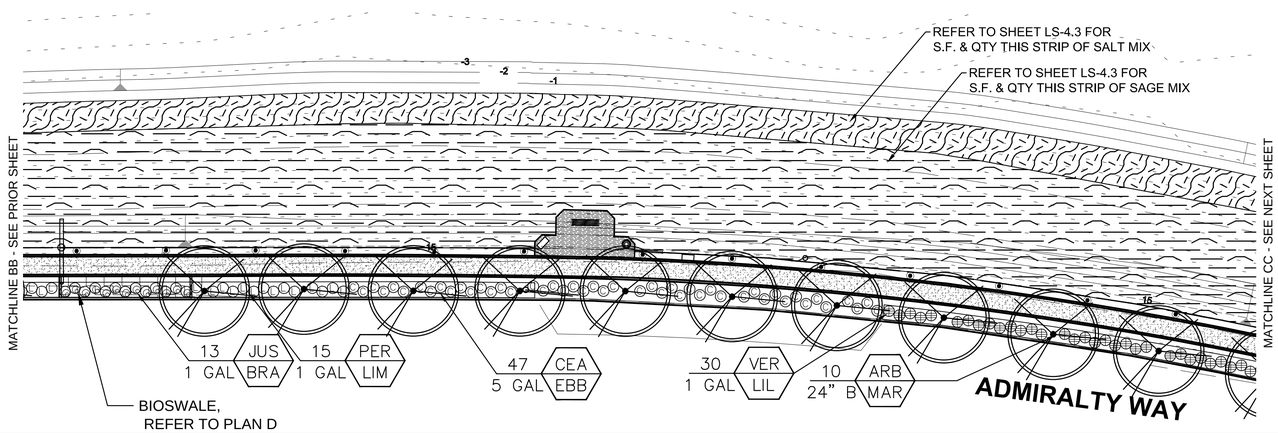
OXFORD RETENTION BASIN
MULTI-USE ENHANCEMENT PROJECT

PLANTING PLAN

LS-4.1

FCC0001176 | PCA EF21507000 | | SHEET 23 OF 27





NORTH

GRAPHIC SCALE: 1"=20'

DIGALERT
CALL 8-1-1 TOLL FREE
2 workings days before you dig

PLAN LS

DATE	MK	DESCRIPTION
		REVISIONS

REGISTERED LANDSCAPE ARCHITECT KATHLEEN ZUREK 4371 1-14-13 STATE OF CALIFORNIA
PROJECT LANDSCAPE ARCHITECT

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN
MULTI-USE ENHANCEMENT PROJECT

PLANTING PLAN

LS-4.2

FCC0001176	PCA EF21507000		SHEET 24 OF 27

MATCHLINE DD - SEE PRIOR SHEET

MATCHLINE CC - SEE PRIOR SHEET

(34,413 S.F.) SAGE MIX

(9,193 S.F.) SALT MIX

(5,826 S.F.) SALT MIX

(35,565 S.F.) SAGE MIX

(4,015 S.F.) SCRN MIX

MULCH UNDER EXISTING TREES

OXFORD AVE.

(1,423 S.F.) SCRN MIX

21 1 GAL VER LIL

2 24" B ARB MAR

LINER STARTS HERE, REFER TO PLAN D

32 5 GAL CEA EBB

32 1 GAL ERI KAR

ADMIRALTY WAY

65 5 GAL CEA EBB

53 1 GAL VER LIL

MATCHLINE EE - SEE NEXT SHEET

NORTH

0 10' 20' 40' 60'

GRAPHIC SCALE: 1"=20'

PLAN LS

DIGALERT

CALL 8-1-1 TOLL FREE

2 workings days before you dig

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED LANDSCAPE ARCHITECT STEPHEN ZUREK 4937 1-14-13 STATE OF CALIFORNIA

PROJECT LANDSCAPE ARCHITECT

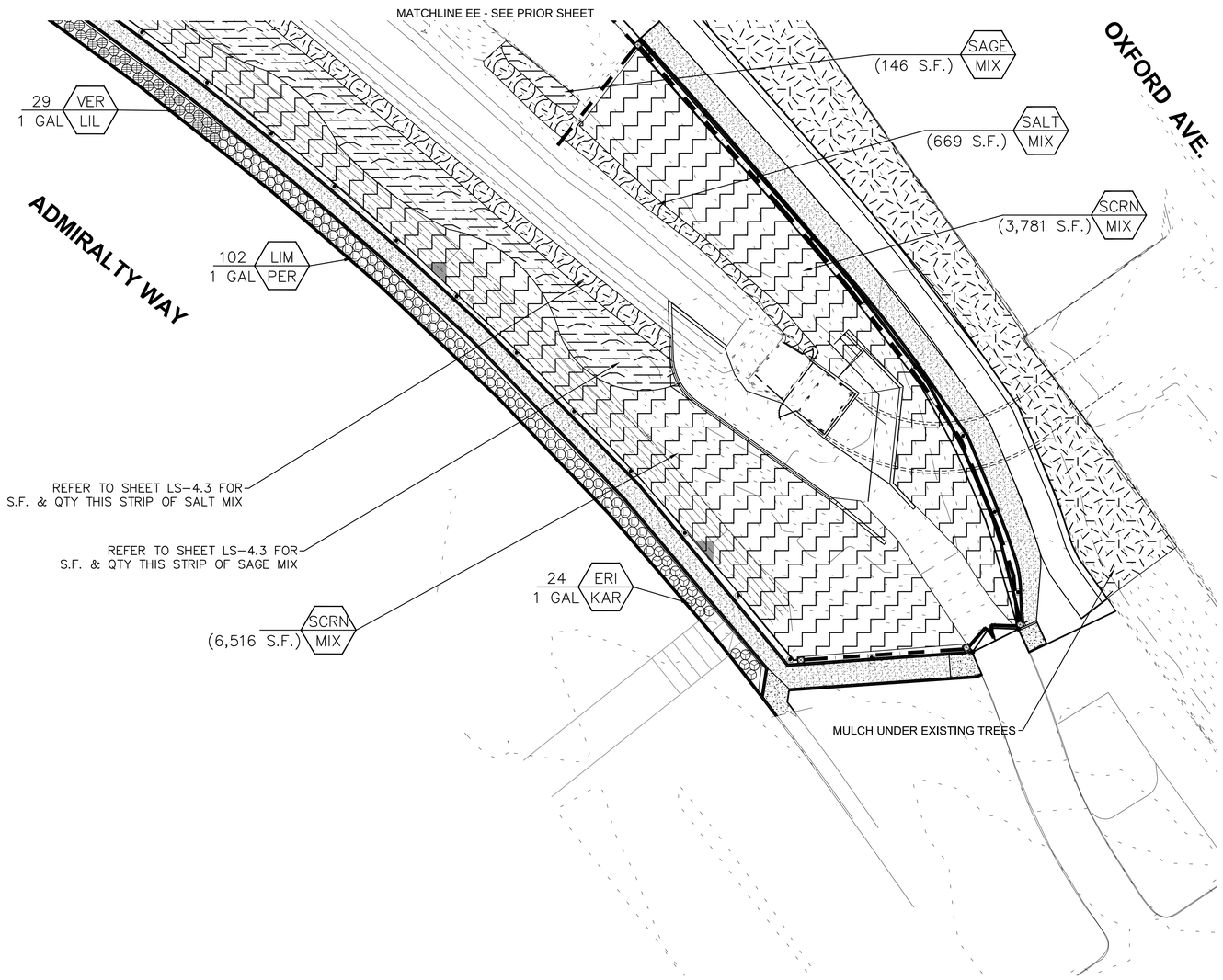
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN
MULTI-USE ENHANCEMENT PROJECT

PLANTING PLAN

LS-4.3

FCC0001176	PCA EF21507000		SHEET 25 OF 27



NORTH

0 10' 20' 40' 60'
GRAPHIC SCALE: 1"=20'

PLAN LS

DIGALERT
CALL 8-1-1 TOLL FREE
2 workings days before you dig

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED LANDSCAPE ARCHITECT STEPHEN ZUREK 4317 STATE OF CALIFORNIA 1-14-13

PROJECT LANDSCAPE ARCHITECT

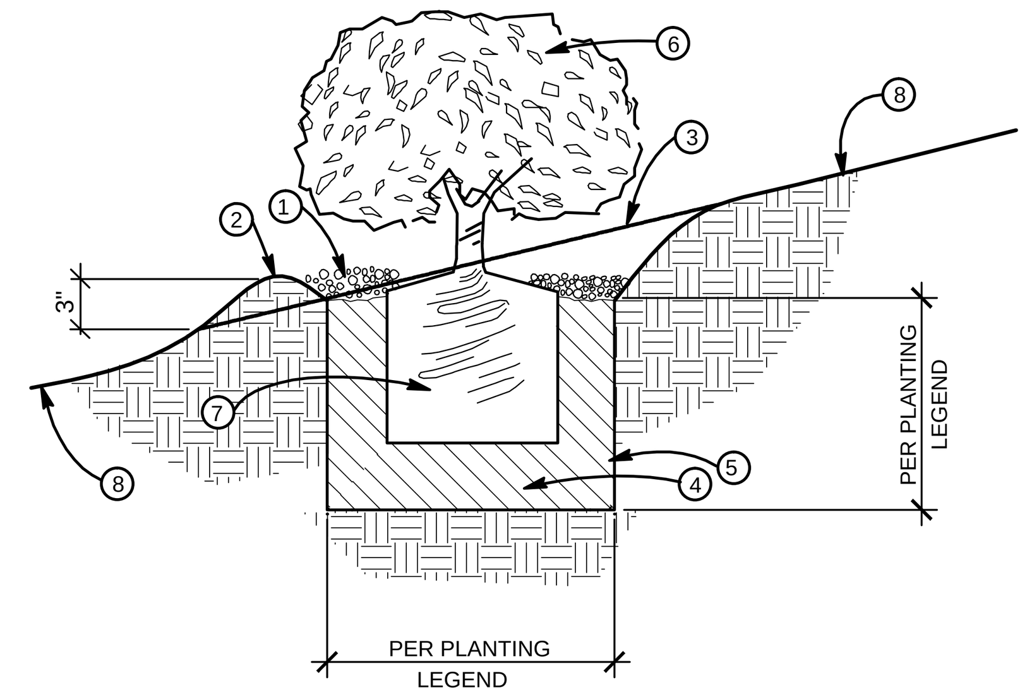
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN
MULTI-USE ENHANCEMENT PROJECT

PLANTING PLAN

LS-4.4

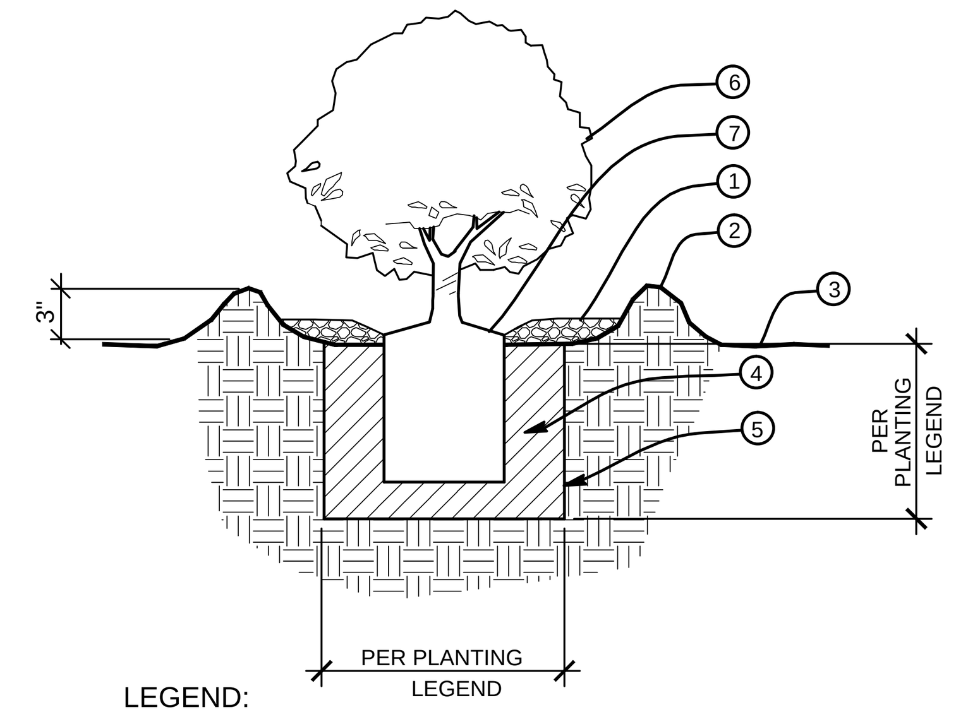
FCC0001176	PCA EF21507000		SHEET 26 OF 27



LEGEND:

1. BACKFILL WATER BASIN W/ 3" OF UNCOMPACTED MULCH. KEEP MULCH AWAY FROM CROWN.
2. FORM 3" HIGH BERM TO MATCH EXCAVATED AREA PER PLANTING LEGEND AROUND BASIN.
3. EXISTING SLOPE.
4. BACKFILL MIX. REFER TO SPECIAL PROVISIONS. FOOT TAMP SUFFICIENT ENOUGH TO REMOVE AIR POCKETS AND PREVENT SETTLING.
5. PLANTING POCKET - DIMENSION PER PLANTING LEGEND.
6. SHRUB.
7. ROOT BALL. SET TOP OF ROOT BALL 1" ABOVE ADJACENT GRADE (DOWN SLOPE SIDE).
8. PROPOSED JUTEMAT. SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.

Ⓔ SHRUB PLANTING ON SLOPE — NTS



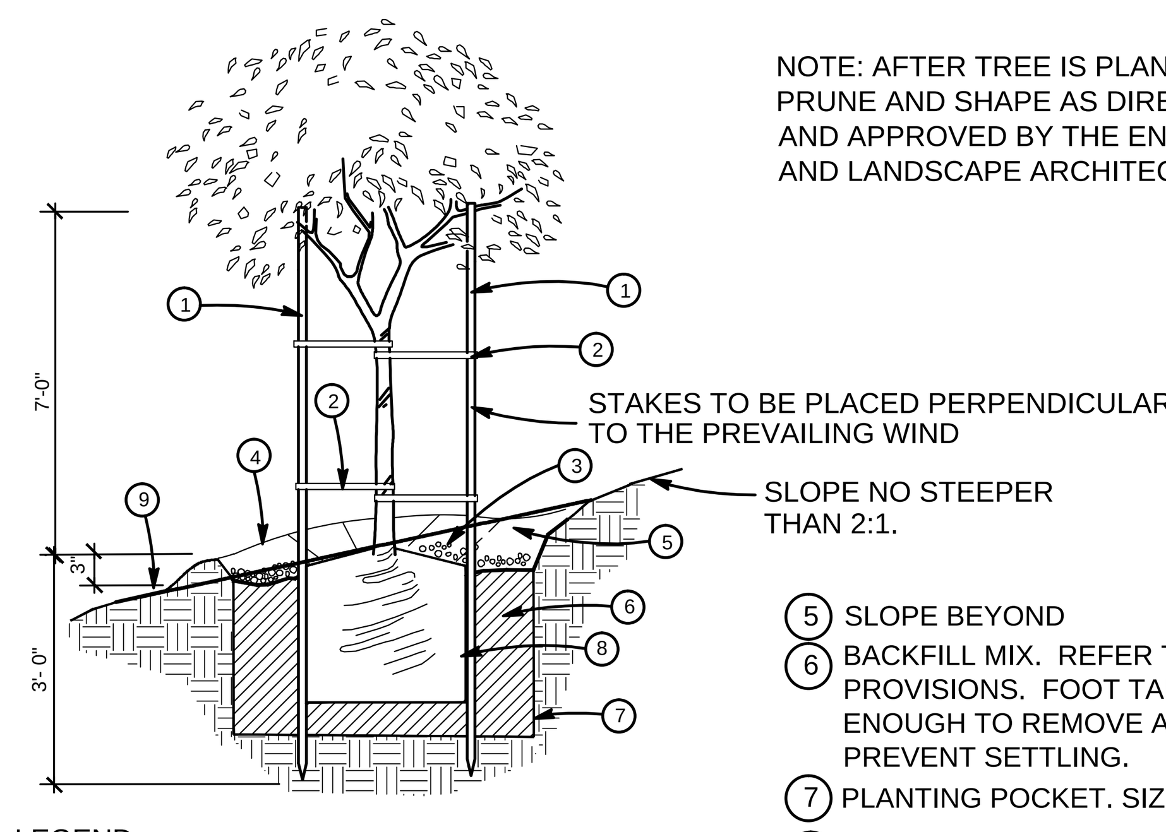
LEGEND:

1. BACKFILL WATER BASIN W/ 3" LAYER OF MULCH. KEEP MULCH AWAY FROM CROWN OF ROOTBALL.
2. FORM 3" HIGH BERM AROUND BASIN
3. FINISH GRADE
4. BACKFILL MIX. REFER TO SPECIAL PROVISIONS. FOOT TAMP SUFFICIENT ENOUGH TO REMOVE AIR POCKETS AND PREVENT SETTLING
5. PLANTING POCKET - DIMENSION PER PLANTING LEGEND
6. SHRUB/GROUND COVER
7. SET TOP OF ROOT BALL 1" ABOVE FINISH GRADE

Ⓒ SHRUB PLANTING — NTS

Ⓐ — NTS

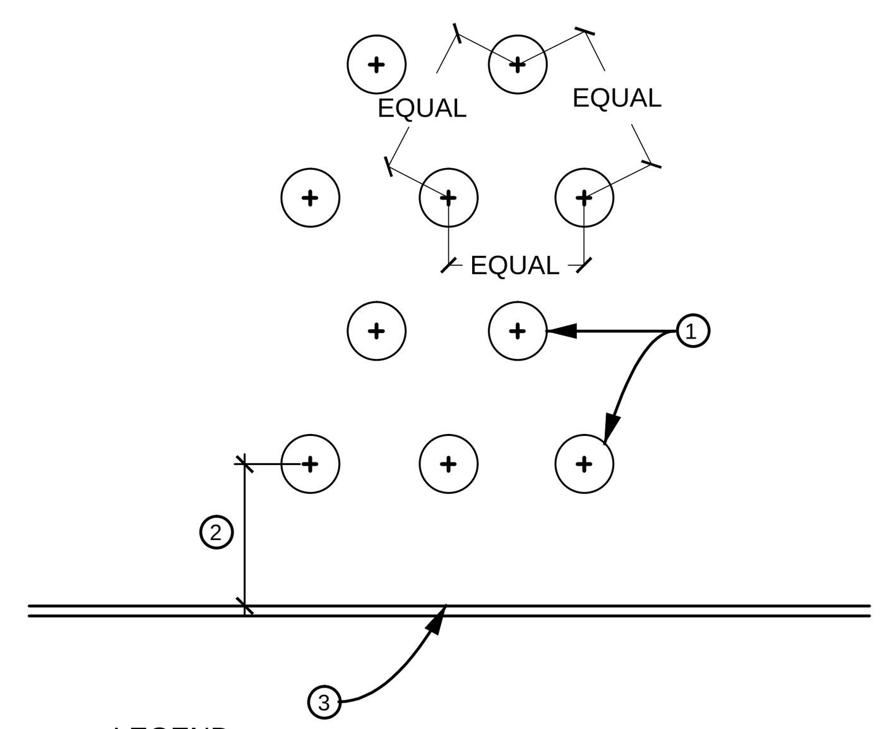
NOTE: AFTER TREE IS PLANTED, PRUNE AND SHAPE AS DIRECTED AND APPROVED BY THE ENGINEER AND LANDSCAPE ARCHITECT



LEGEND:

1. (2) TWO 10'-0" x 2" COMPLETELY TREATED LODGEPOLE TREE STAKE. REFER TO SPECIAL PROVISIONS.
2. FASTEN TREE TO STAKES W/ "WONDER TREE TIES" OR EQUAL (TYP.) TWO (2) AT EACH STAKE.
3. BACKFILL WATER BASIN W/ 3" OF UNCOMPACTED MULCH. KEEP MULCH AWAY FROM CROWN.
4. FINISH GRADE (VARIES) FORM 3" HIGH BERM AROUND BASIN. EXCAVATE TO FORM BERM. 3'-0" DIA.
5. SLOPE BEYOND
6. BACKFILL MIX. REFER TO SPECIAL PROVISIONS. FOOT TAMP SUFFICIENT ENOUGH TO REMOVE AIR POCKETS AND PREVENT SETTLING.
7. PLANTING POCKET. SIZE PER PLANTING LEGEND.
8. ROOT BALL. SET TOP OF ROOT BALL 1" ABOVE FINISHED GRADE.
9. EROSION CONTROL JUTEMAT. SEE SPECIAL PROVISIONS FOR INFORMATION.

Ⓕ TREE PLANTING/STAKING ON SLOPE — NTS



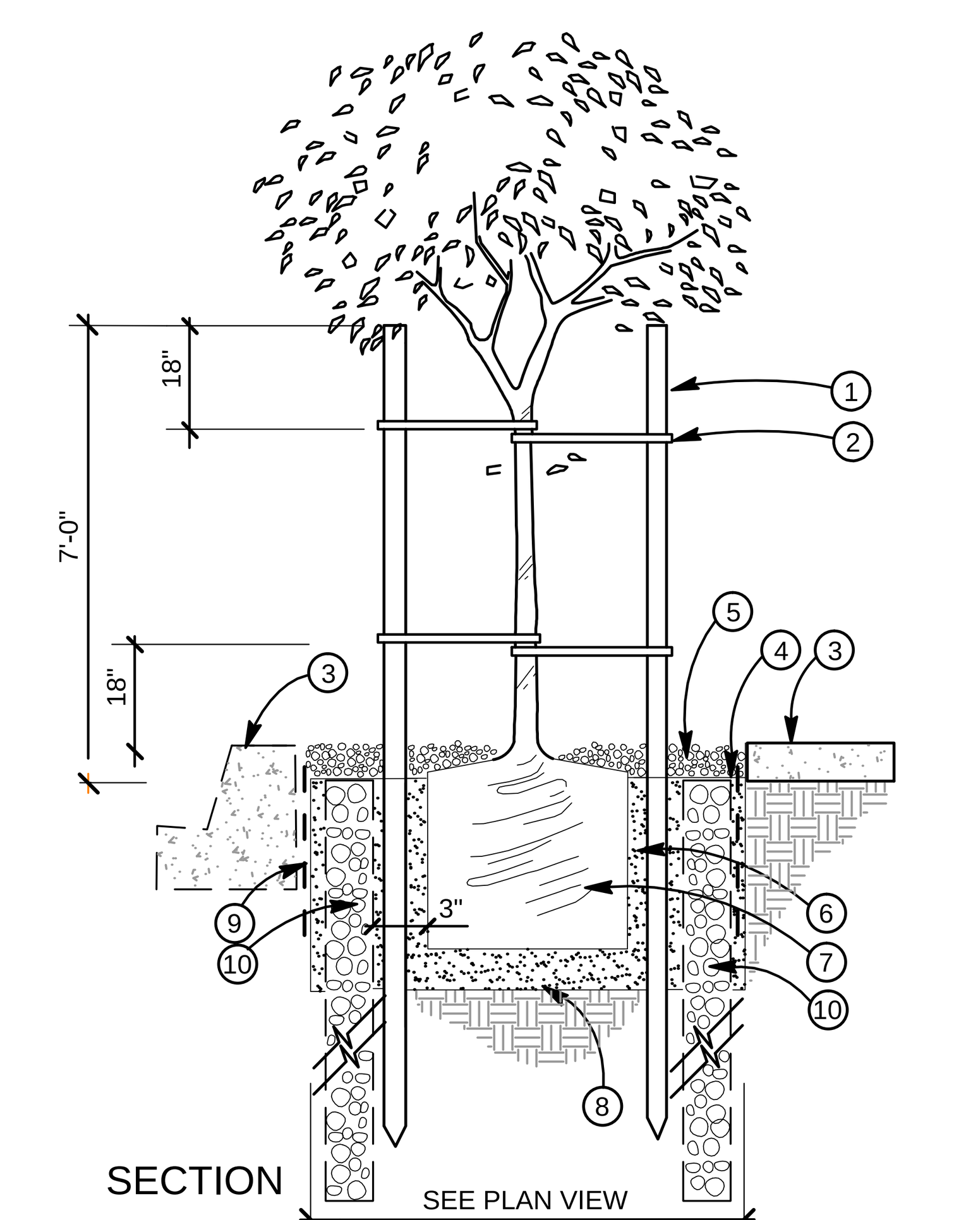
LEGEND:

1. LOCATE PLANTS WITH AN EQUAL ON-CENTER SPACING AS INDICATED ON THE DRAWINGS.
2. ALL PLANTS SHALL BE PLANTED PER THEIR SPACING REQUIREMENT FROM BACK OF CURB/EDGE OF PAVEMENT TO CENTER POINT OF PLANT.
3. BACK OF CURB AND/OR EDGE OF PAVEMENT

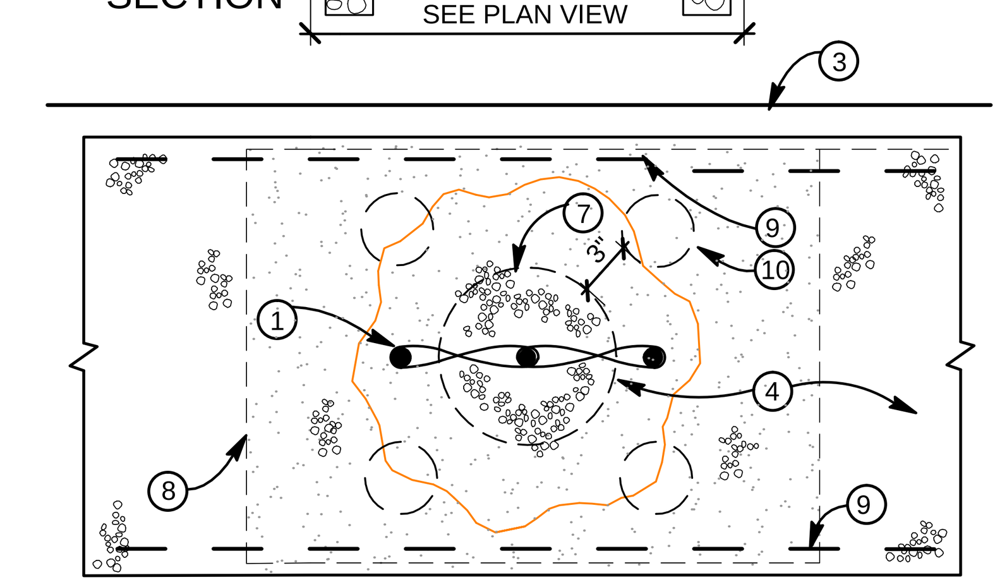
NOTE:

1. ALIGN PLANT SPACING ROW LAYOUT PARALLEL TO THE CURB OR EDGE OF PAVING

Ⓓ SHRUB / GROUNDCOVER SPACING



SECTION



PLAN VIEW

TREE PLANTING - SIDEWALK TREE WELL

24" BOX TREE

LEGEND:

1. (2) TWO 10'-0" x 2" DIA. TREATED LODGEPOLE TREE STAKES
2. FASTEN TREE TO STAKES WITH "WONDER TREE TIES" OR APPROVED EQUAL, TWO (2) AT EACH STAKE, FOUR TOTAL.
3. FINISH SURFACE OF ADJACENT PAVING OR CURB
4. SET FINISH GRADE AT 3" BELOW ADJACENT PAVING OR CURB
5. 3" OF STABILIZED DECOMPOSED GRANITE, 3" CLEAR FROM TRUNK. COLOR TO BE GOLD. TAMP SMOOTH.
6. BACKFILL MIX. REFER TO SPECIFICATIONS. FOOT TAMP SUFFICIENT ENOUGH TO REMOVE AIR POCKETS AND PREVENT SETTLING.
7. ROOT BALL. SET TOP OF ROOT BALL 1" ABOVE FINISH GRADE. TRUNK/ROOT FLARE SHALL BE VISIBLE DO NOT COVER ROOTBALL WITH SOIL
8. PLANTING POCKET. SIZE PER PLANTING LEGEND
9. LINEAR ROOT BARRIER 6' LENGTH X 18" DEEP PARALLEL TO CURB AND SIDEWALK ONLY.
10. PERFORATED PIPE (4" DIA., 48" DEPTH), 4 TOTAL FLUSH WITH BACKFILL GRADE. FILL WITH 1-1/2" GRAVEL. ENCASE IN FILTER FABRIC (OVERLAP 12").

NOTE:

1. REMOVE ALL NURSERY STAKES
2. INSTALL TREE STAKES PERPENDICULAR TO THE PREVAILING WIND OR DIRECTION OF TRAFFIC.
3. AFTER THE TREE IS PLANTED, PRUNE AS DIRECTED AND APPROVED BY THE ENGINEER AND LANDSCAPE ARCHITECT.

Ⓑ PARKWAY TREE PLANTING — NTS — PLAN LS

DIGALERT
CALL 8-1-1 TOLL FREE
2 workings days before you dig

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED LANDSCAPE ARCHITECT — STEPHEN ZUREK #5119 — 1-14-13 — EXP. 5-31-14 — STATE OF CALIFORNIA

PROJECT LANDSCAPE ARCHITECT

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN MULTI-USE ENHANCEMENT PROJECT

PLANTING DETAILS

LS-4.5

FCC0001176 | PCA EF21507000 | SHEET 27 OF 27

GENERAL NOTES:

A. (10,000) = AVAILABLE 1ø FAULT CURRENT OF 10,000 AMPS (RMS, SYM. AMPS).

B. ALL WORK SHALL BE IN ACCORDANCE WITH THE 2011 COUNTY OF LOS ANGELES ELECTRICAL (2008 NEC), THE ELECTRICAL ORDINANCES OR CODES OF LOCAL AUTHORITY HAVING JURISDICTION.

C. AGENCY SHALL OBTAIN ALL REQUIRED ELECTRICAL PERMITS. ARRANGE FOR ALL REQUIRED ELECTRICAL INSPECTIONS.

D. WORK UNDER THIS CONTRACT SHALL INCLUDE, BUT NOT TO BE LIMITED TO, FURNISHING, INSTALLING AND CONNECTION OF ALL ELECTRICAL EQUIPMENT AND TESTING OF ALL SYSTEMS AND SUB-SYSTEMS WITHIN THE SCOPE OF WORK. BEFORE ACCEPTANCE OF THE WORK, THE CONTRACTOR SHALL DEMONSTRATE, IN THE PRESENCE OF THE ENGINEER, THAT ALL PORTIONS OF THE ELECTRICAL WORK ARE OPERATING PROPERLY PER MANUFACTURER'S SPECIFICATION.

E. PROJECT SITE SHALL BE KEPT BROOM CLEAN AFTER COMPLETION OF WORK. ALL TRASH/DEBRIS GENERATED DURING CONSTRUCTION SHALL BE THE PROPERTY OF THE CONTRACTOR AND DISPOSED BY THE CONTRACTOR.

F. ALL ITEMS ARE NEW.

G. CONDUCTORS: ALL SHALL BE COPPER, RATED 600V, INSULATION TYPE THWN.

H. CONDUITS: EXPOSED OUTDOOR CONDUITS SHALL BE RIGID GALVANIZED STEEL (RGS), ALL EXTERIOR UNDERGROUND CONDUITS SHALL PVC40 (STRAIGHT RUNS) & PVC80 (SWEEPS), SEE ELECTRICAL SITE PLAN FOR CONDUIT SIZE. ALL CONDUIT RUNS SHALL HAVE A GREEN INSULATED EQUIPMENT GROUNDING CONDUCTOR SIZED PER NEC.

I. ALL ELECTRICAL MATERIALS SHALL BE LISTED BY U.L.

LEGEND:

BOLLARD LIGHT FIXTURE, 8" SQUARE BY 43" HIGH VANDAL RESISTANT CONCRETE, NATURAL GRAY, 15-LED TYPE 3 5100K, 180° COVERAGE, 120V-277V. ARROW INDICATES DIRECTION OF ILLUMINATION. NUMBER-DENOTES CIRCUIT NUMBER. LIGHT FIXTURE SHALL BE OR COUNTY APPROVED EQUAL TO KIM LIGHTING CAT. #VSB1C-15L (IES TYPE 3)-5100K-UV.

IN-WALL STEP LIGHT FIXTURE, 10" SQUARE, LIGHT GREY, 9-LED BRIGHT WHITE 5100K, 120V-277VAC. NUMBER-DENOTES CIRCUIT NUMBER. LIGHT FIXTURE SHALL BE OR COUNTY APPROVED EQUAL TO ARCHITECTURAL AREA LIGHTING CAT. #ASL10SQLS-9LEDBW-LGY-BSA.

UNDERGROUND BRANCH CIRCUIT, SEE SITE PLAN FOR CONDUIT AND WIRES SIZES.

CALL OUT NOTE NUMBER 1.

PANEL SCHEDULE

DIST BD.: "P1" | SERVICE: 125A-480Y/277VAC-3ϕ-4W | C.B. AIC: 22KAIC

ENCLOSURE: NEMA 3R | MAIN C.B.: 125A-3P | LOCATION: WALL MTD.

MANUF/CAT: SQ-D OR APPROVED EQUAL | BUS/AIC: 125A/22KAIC

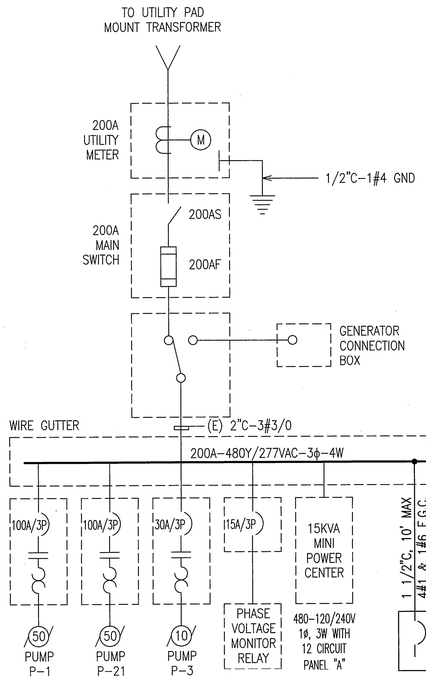
CKT	<-- LOAD (VA) A	B	C --> TYPE	BKR	OUTLET QUAN	DESCRIPTION		CKT	<-- LOAD (VA) A	B	C --> TYPE	BKR	OUTLET QUAN	DESCRIPTION
1	249 ----------			20/1	14	PATHWAY LIGHTING	A	2				20/1		SPARE
3	----- 246 -----			20/1	14	PATHWAY LIGHTING	B	4				20/1		SPARE
5	---------- 231			20/1	13	PATHWAY LIGHTING	C	6				20/1		SPARE
7						PROVISION	A	8						PROVISION
9						PROVISION	B	10						PROVISION
11						PROVISION	C	12						PROVISION
13						PROVISION	A	14						PROVISION
15						PROVISION	B	16						PROVISION
17						PROVISION	C	18						PROVISION
19						PROVISION	A	20						PROVISION
21						PROVISION	B	22						PROVISION
23						PROVISION	C	24						PROVISION
25						PROVISION	A	26						PROVISION
27						PROVISION	B	28						PROVISION
29						PROVISION	C	30						PROVISION

CONNECTED:	VA	AMPS
PHASE A =	249	1.0
PHASE B =	246	1.0
PHASE C =	231	1.0
TOTAL =	726	1.0

L.C.L. @ 125% =	907.5
RECEPT. (> 10 kVA @ 50%) =	
KITCHEN @ 65% =	
OTHER LOAD @ 100% =	
TOTAL VA =	907.5
TOTAL AMPS =	1.0

LOAD TYPE:

G - GENERAL (100%) | M - MOTOR (100%)
L - L.C.L. (125%) | M1 - MOTOR (125%)
R - RECEPTACLE (50%) | X - X-RAY (100%)
(10 kVA @ 100%) | X1 - X-RAY (50%)
K - KITCHEN (65%)



LOAD SUMMARY:

PER SCE, 12-MONTH PEAK DEMAND IS 79 KW @ 1.0 PF

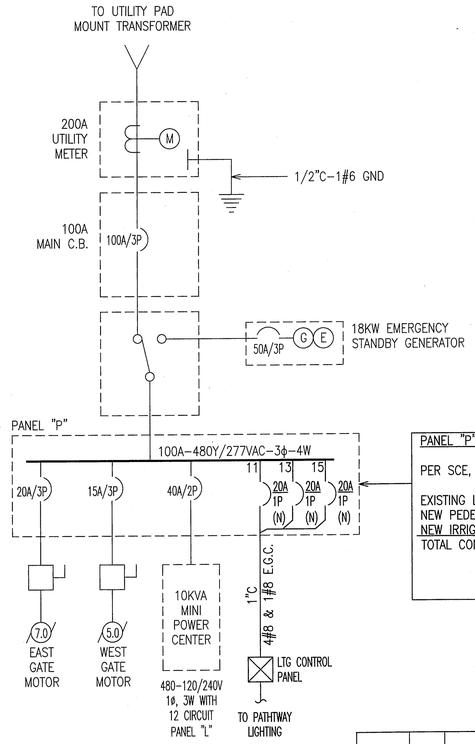
EXISTING LOAD: 79 KW x 1.25	98.8 KW
NEW PANEL BOARD "P1"	1.0 KW
TOTAL CONNECTED LOAD	99.8 KW

99.8 KW=120.1A @ 480VAC-3ϕ
ON A 200A-3P MAIN FUSE DISC. SWITCH

PANEL BOARD "P1"
125A-480Y/277VAC-3ϕ-4W-30CKT

ONE-LINE DIAGRAM
PUMP CONTROL HOUSE

NO SCALE



PANEL "P" LOAD SUMMARY:

PER SCE, 12-MONTH PEAK DEMAND IS 51KW @ 1.0 PF

EXISTING LOAD: 51KW x 1.25	63.8 KW
NEW PEDESTRIAN LT. BOLLARDS: 51 FIXT x 18W/FIXT.	1.0 KW
NEW IRRIGATION CONTROLLER	0.6 KW
TOTAL CONNECTED LOAD	65.4 KW

65.4KW=78.7A @ 480VAC-3ϕ
ON A 100A-3P MAIN C.B.

ONE-LINE DIAGRAM
TIDE GATE CONTROL HOUSE

NO SCALE

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER
ROBERTO R. DE LA MERCED
E15357
Exp. date: 06-30-13
ELECTRICAL
STATE OF CALIFORNIA

11/8/12
PROJECT ENGINEER | DATE

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN MULTI-USE ENHANCEMENT PROJECT

ELECTRICAL LEGEND, GENERAL NOTES, DETAILS, ONE-LINE DIAGRAM

SHEET E-0.1

FCC0001176 | PCA EF21507000 | 1 OF 7

1. WORK INLCUDED:

PROVIDE ALL LABOR, MATERIALS, APPLIANCES, TOOLS, EQUIPMENT, FACILITIES, TRANSPORTATION, AND SERVICES NECESSARY FOR AND INCIDENTAL TO PERFORMING ALL OPERATIONS IN CONNECTION WITH FURNISHING, INSTALLATION, AND MAKING FULLY OPERATIONAL THE WORK OF THIS DIVISION, COMPLETE, AND AS SHOWN AND/OR SPECIFIED HEREIN.

A. EXCEPT SUCH MATERIAL OR EQUIPMENT SPECIFICALLY INDICATED AS PROVIDED BY THE OWNER, OR BY OTHERS.

B. PRIOR TO COMMENCING THE WORK, CONTRACTOR SHALL INSPECT THE SITE AND BY SUBMITTING A BID FOR THE WORK, SHALL BE DEEMED TO HAVE VERIFIED ALL EXISTING CONDITIONS AND ACCEPTS SAME AS TRUE AND COMPLETE.

C. RELATED SECTIONS AND ASSOCIATED WORK:

1. DIVISION 1 AND THE GENERAL CONDITIONS OF THE CONTRACT APPLY TO ALL WORK HEREIN SPECIFIED. ADDITIONALLY, THIS SPECIFICATION SUPPLEMENTS THE APPLICABLE REQUIREMENTS OF OTHER DIVISIONS.

2. EQUIPMENT, DEVICES AND WIRING FURNISHED UNDER DIVISION 15 AND INDICATED FOR INSTALLATION UNDER THIS DIVISION SHALL BE INSTALLED IN ACCORDANCE WITH DIVISION 15 AND ASSOCIATED DRAWINGS.

3. CUTTING, DRILLING, AND PATCHING SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE SPECIFICATIONS.

2. SUBMITTALS:

SUBMIT WRITTEN INFORMATION TO THE OWNER FOR APPROVAL, AS FOLLOWS:

A. PRODUCT DATA AND SHOP DRAWINGS: THREE COPIES WITHIN FIVE (5) DAYS OF THE AWARD OF CONTRACT. EQUIPMENT AND MATERIALS FOR WHICH SUBMITTALS ARE REQUIRED SHALL INCLUDE: WIRING DEVICES; SWITCHBOARDS; DISCONNECT SWITCHES; TRANSFORMERS; PANELBOARDS; MOTOR CONTROLLERS; LIGHT FIXTURES AND LIGHTING SYSTEM–ASSOCIATED CONTROL SYSTEM COMPONENTS, POLES AND MOUNTING BASES. (SUBMITTALS FOR REINFORCED CONCRETE BASES FOR LIGHTING POLES SHALL INCLUDE FOUNDATION DESIGN/INSTALLATION DRAWINGS SIGNED BY A STRUCTURAL ENGINEER CURRENTLY REGISTERED IN THE STATE OF CALIFORNIA)

1. SUBSTITUTIONS: MANUFACTURER AND CATALOG NUMBERS INDICATED ARE FOR THE PURPOSE OF ESTABLISHING STANDARDS OF QUALITY, ALLOWABLE SIZE OF COMPONENTS, AND TYPE OF MATERIALS TO BE USED. PRODUCTS BY OTHER MANUFACTURERS WILL BE CONSIDERED IF THE SUBMITTAL ASSOCIATED WITH THAT ITEM IS CLEARLY MARKED "THIS ITEM IS A SUBSTITUTION", AND IT COMPLIES WITH THE FOLLOWING: (1) QUALITY AND CAPACITY ARE EQUAL TO OR BETTER THAN THE SPECIFIED ITEM, AND (2) COMPONENTS FIT IN THE ALLOWED SPACES AND ARE SIMILAR IN APPEARANCE. NO SUBSTITUTION ITEMS MAY BE FURNISHED OR INSTALLED WITHOUT WRITTEN APPROVAL OF THE OWNER.

B. OPERATIONS AND MAINTENANCE MANUALS: THREE COPIES OF OPERATING AND MAINTENANCE DATA FOR ALL ELECTRICAL EQUIPMENT, BOUND IN A HARDCOVER THREE–RING PLASTIC BINDER WITH A TABLE OF CONTENTS.

C. RECORD DRAWINGS: DURING THE WORK, MAINTAIN A SET OF AS–BUILT DRAWINGS AT THE SITE BY NOTING ON THEM IN WRITING (IN CLEAR, NEAT AND THOROUGH MANNER) ALL CHANGES TO THE CONTRACT. ANNOTATIONS SHALL BE CURRENT WITH ALL WORK PERFORMED. SUBMIT THESE RECORD DRAWINGS UPON COMPLETION OF THE WORK.

3. COORDINATION:

PROVIDE NECESSARY COORDINATION WITH SERVING UTILITY COMPANIES TO ESTABLISH SERVICE ENTRANCE FACILITIES, AND TO MEET OTHER REQUIREMENTS FOR A COMPLETE AND OPERABLE INSTALLATION. VERIFY SIZE AND ORIENTATION OF EQUIPMENT TO BE INSTALLED IN INTERIOR SPACES WITH THE MANUFACTURER OF THAT EQUIPMENT TO ENSURE ADEQUATE WORKING CLEARANCES AND VENTILATION. COORDINATE THE WORK OF OTHER TRADES, VERIFY REQUIRED WORKING CLEARANCES, SLEEVES, SUPORTS, DOOR SWINGS, AND OTHER ITEMS AFFECTING THE WORK OF THIS SECTION. VERIFY THE METHODS OF INSTALLING AND CONNECTING EQUIPMENT, OUTLETS, AND OTHER ITEMS.

4. QUALITY ASSURANCE:

ALL MATERIALS AND THE MANNER IN WHICH THEY ARE APPLIED AND INSTALLED SHALL BE IN COMPLIANCE WITH THE LATEST RULES AND REGULATIONS OF THE CALIFORNIA CODE OF REGULATIONS TITLE 24, PART 3 "CALIFORNIA ELECTRICAL CODE"; THE NATIONAL ELECTRICAL CODE; AND OTHER APPLICABLE STATE AND LOCAL LAWS AND REGULATIONS.

5. PERMITS, FEES, AND INSPECTIONS:

OBTAIN AND PAY FOR PERMITS AND LICENSES REQUIRED FOR THE WORK. OBTAIN PERMITS PRIOR TO COMENCING ANY WORK. ARRANGE FOR AND SCHEDULE REQUIRED INSPECTIONS. PAY UTILITY FEES AND CHARGES REQUIRED TO ESTABLISH PERMANENT SERVICE, AND ANY OTHER UTILITY FEES.

6. PROTECTION AND CLEANING:

ALL PARTS OF EQUIPMENT AND MATERIALS SHALL BE THOROUGHLY CLEANED. PROTECT ALL WORK, MATERIALS AND EQUIPMENT FROM DAMAGE FROM ANY CAUSE AND PROVIDE ADEQUATE AND PROPER STORAGE FACILITIES DURING THE PROGRESS OF THE WORK. PROVIDE FOR THE SAFETY AND GOOD CONDITION OF ALL THE WORK UNTIL FINAL ACCEPTANCE BY THE OWNER. REPLACE ALL DAMAGED OR DEFECTIVE WORK, MATERIALS AND EQUIPMENT PRIOR TO REQUESTING FINAL ACCEPTANCE. PROVIDE AND MAINTAIN SUITABLE BARRIERS, WARNING SIGNS, LIGHTS, ETC., WHERE REQUIRED FOR PROTECTION OF THE PUBLIC AND OCCUPANTS ABOUT THE SITE. AT THE CONCLUSION OF EACH WORKDAY, THE PREMISES SHALL BE LEFT FREE FROM DEBRIS INCIDENTAL TO THE WORKDAY, AND IN A CONDITION ACCEPTABLE TO THE OWNER OR TENANT.

7. GUARANTEES:

PROVIDE A ONE YEAR MINIMUM WRITTEN GUARANTEE (IN A MANNER ACCEPTABLE TO THE OWNER) AGAINST DEFECTS IN WORKMANSHIP OR MATERIALS.

1. GENERAL:

A. GROUNDING AND BONDING: GROUNDING AND BONDING SHALL BE PROVIDED IN COMPLIANCE WITH ALL APPLICABLE CODES AND REGULATIONS, BOTH OF THE STATE OF CALIFORNIA AND THE AUTHORITIES HAVING JURISDICTION.

B. ELECTRICAL IDENTIFICATION: PROVIDE NAMEPLATES FOR SWITCHBOARDS, PANELBOARDS, DISCONNECT SWITCHES, CONTACTORS/RELAYS, TERMINAL CABINETS/BACKBOARDS, MOTOR CONTROLLERS, INDIVIDUALLY–MOUNTED CIRCUIT BREAKERS, PULL BOXES, CONTROL PANELS, TIME CLOCKS, AND FOR ANY OTHER CONTROL DEVICE OR MAJOR ITEM OF ELECTRICAL EQUIPMENT.

1. NAMEPLATES SHALL BE BLACK–ON–WHITE (NORMAL POWER) OR RED–ON–WHITE (EMERGENCY POWER) LAMINATED PLASTIC, ATTACHED WITH MACHINE SCREWS. LETTERING SHALL BE 1/4" HIGH MINIMUM, CORRESPONDING TO THE DESIGNATION (OR ADDITIONAL INFORMATION) SHOWN.

C. PRELIMINARY OPERATION AND TESTING:

1. ALL WIRING AND CONNECTIONS SHALL BE TESTED FOR CONTINUITY (OPENS AND SHORTS) AND PROPER GROUNDING IN ACCORDANCE WITH THE REQUIREMENTS OF THE NEC.

2. ALL MOTOR–DRIVEN EQUIPMENT SHALL BE EXAMINED FOR COMPLETION OF ALL CONNECTIONS, AND TESTED FOR CORRECT ROTATION.

2. RACEWAY AND BOXES:

THE APPLICATION AND INSTALLATION OF RACEWAY AND BOXES SHALL BE IN COMPLIANCE WITH NEC REQUIREMENTS. WHERE THE SIZE OF RACEWAY OR BOXES ARE NOT INDICATED, THE CONTRACTOR SHALL SIZE THESE ITEMS AS REQUIRED FOR THE INSTALLATION. MINIMUM CONDUIT SIZE SHALL BE 3/4 INCHES. PROVIDE GALVANIZED PRESSED STEEL OUTLET BOXES OF PROPER SIZE AND TYPE AS REQUIRED BY THE BUILDING CONDITIONS FOR ALL INTERIOR OUTLETS FOR RECEPTACLES, SWITCHES, LIGHTING, VOICE/DATA COMMUNICATIONS SYSTEMS JACKS, AND OTHER EQUIPMENT/DEVICES WHICH REQUIRE POWER SUPPLY OR CONTROL/SIGNAL CABLING CONNECTIONS. OUTLETS FOR WALL–MOUNTED SWITCHES SHALL BE INSTALLED ADJACENT TO THE TRIM ON THE STRIKING SIDE OF THE DOOR, REGARDLESS OF THE LOCATION SHOWN – THEREFORE, CONFIRM ALL DOOR SWINGS PRIOR TO ROUGH–IN OF OUTLETS AND RACEWAY. ALL RACEWAY INSTALLED AT THIS TIME BUT LEFT EMPTY FOR FUTURE WORK (THAT IS, SHOWN AS CONDUIT ONLY, OR C.O.) SHALL BE PROVIDED WITH A 1/8" DIAMETER POLYPROPYLENE PULL ROPE FROM END–TO–END.

A. WIRING METHOD SHALL BE AS FOLLOWS, EXCEPT AS OTHERWISE INDICATED

1. EXTERIOR, EXPOSED: RIGID GALVANIZED STEEL. FOR CONNECTION TO VIBRATING EQUIPMENT, USE LIQUIDTIGHT FLEXIBLE METAL CONDUIT.

2. EXTERIOR, CONCEALED: RIGID GALVANIZED STEEL. FOR CONDUIT IN SLAB OR UNDERGRADE, USE PVC SCHEDULE 40 (PROVIDE CONCRETE ENCASEMENT AS INDICATED).

3. INTERIOR, EXPOSED: RIGID GALVANIZED STEEL; OR ELECTRICAL METALLIC TUBING (EMT) AS ALLOWED BY THE NEC. FOR CONNECTION TO VIBRATING EQUIPMENT (INCLUDING MOTOR–DRIVEN EQUIPMENT AND TRANSFORMERS), USE LIQUIDTIGHT FLEXIBLE METAL CONDUIT, 18 INCHES MAXIMUM LENGTH. FOR CONNECTION TO LIGHTING FIXTURES ABOVE SUSPENDED ACOUSTICAL OR METAL CEILINGS, USE HEAVYWALL FLEXIBLE METAL CONDUIT, 72 INCHES MAXIMUM LENGTH.

4. INTERIOR, CONCEALED: EMT. FOR CONDUIT IN SLAB OR UNDER SLAB ON GRADE, USE PVC SCHEDULE 40 (PROVIDE CONCRETE ENCAEMENT AS INDICATED).

B. RACEWAY TYPES:

1. METALLIC CONDUIT:

a. RIGID GALVANIZED STEEL (RGS): ANSI C80.1; ANSI/NEMA FB 1, UL 6/514B. THREADED STEEL TYPE, INSIDE AND OUTSIDE SURFACES ZINC–COATED BY HOT–DIP PROCESS.

b. ELECTRICAL METALLIC TUBING (EMT): ANSI C80.3; UL 514B/797. WELDED ELECTRO–GALVANIZED STEEL TUBING. COUPLINGS AND CONNECTORS SHALL BE COMPRESSED TYPE.

2. NONMETALLIC CONDUIT: NEMA TC–2/TC 3; UL 514B/651. PVC SCHEDULE 40, HEAVY–WALL, HIGH–IMPACT RIGID, RATED AND LABELED FOR USE WITH 90 DEGREE C–RATED CONDUCTORS.

3. FLEXIBLE CONDUIT: UL 1. HOT–DIP GALVANIZED STEEL INTERLOCKING, SINGLE–STRIP TYPE, MINIMUM INTERMEDIATE GRADE.

4. LIQUIDTIGHT FLEXIBLE METAL CONDUIT: ANSI/NEMA FB 1; UL 360. HOT–DIP GALVANIZED STEEL STRIP CORE WITH EXTRUDED LIQUIDTIGHT POLYVINYL JACKET.

C. RACEWAY INSTALLATION:

1. ALL EXPOSED CONDUIT SHALL BE RUN PARALLEL TO, OR AT RIGHT ANGLES TO, BUILDING WALLS OR STRUCTURAL MEMBERS.

2. SECURELY AND RIGIDLY SUPPORT ALL RACEWAY FROM THE BUILDING STRUCTURE. SECURE BY MEANS OF APPROVED PIPE CLAMPS OR STRAPS. PROVIDE SUPPORTS AT INTERVALS NOT EXCEEDING 10 FEET, AND WITHIN 3 FEET OF TERMINATIONS AND CHANGES IN DIRECTION.

a. INDIVIDUAL SUSPENDED RACEWAYS ABOVE CEILINGS SHALL BE SUPPORTED BY MEANS OF HANGER RODS AND PIPE CLAMPS. MULTIPLE SUSPENDED RACEWAYS SHALL BE SUPPORTED BY MEANS OF TRAPEZE TYPE HANGERS ("C" CHANNELS OR "UNISTRUT") AND PIPE CLAMPS.

b. INDIVIDUAL RACEWAY PLACED AGAINST CONCRETE, MASONRY OR BRICK WALLS OR SLABS SHALL BE SECURED WITH PIPE CLAMPS AND EXPANSION SHIELDS. ATTACHMENT TO DRYWALL OR PLASTER CONSTRUCTION SHALL BE BY MEANS OF PIPE CLAMPS AND SCREWS FASTENED TO STUDS OR OTHER STRUCTURAL MEMBERS. PROVIDE "C" CHANNEL SUPPORTS FOR ALL MULTIPLE RACEWAY RUNS SECURED TO WALLS OR SLABS.

3. CONDUIT RISERS LEAVING A CONCRETE SLAB SHALL BE RIGID GALVANIZED STEEL CONDUIT.

D. OUTLET BOXES: NEMA OS 1; UL 50/514A/514B. ONE PIECE GALVANIZED STEEL KNOCKOUT TYPE, WITH CONDUIT ENTRANCES SIZED TO MATCH. PROVIDE BOXES OF THE PROPER CODE SIZE FOR THE NUMBER OF WIRES OR CONDUITS PASSING THROUGH OR TERMINATING THEREIN, WITH MINIMUM SIZE 4 INCHES SQUARE BY 2–1/8 UNCHES DEEP. FOR EXTERIOR LOCATIONS, AND WHERE INDICATED (WEATHERPROOF) USE CAST FERROUS FS TYPE WITH THREADED HUBS.

E. PULL BOXES AND JUNCTION BOXES FOR INTERIOR OR EXTERIOR ABOVE–GRADE LOCATIONS: ASTM 123/167; NEMA 250/ICS 6/OS 1; UL 50/514A/514B. SHEET STEEL, WITH BOLT–ON COVERS, AS FOLLOWS:

1. EXTERIOR OR WET LOCATIONS, AND WHERE INDICATED (WEATHERPROOF): HOT–DIP GALVANIZED AFTER CONSTRUCTION, WITH TWO COATS OF RUST–RESISTANT PAINT (GRAY COLOR). COVERS SHALL BE EQUIPPED WITH NEOPRENE GASKETS, AND SHALL BE INSTALLED WITH STAINLESS STEEL SCREWS. TO ENSURE WEATHERTIGHTNESS, SEAL CONDUIT ENTRANCES WITH SILICONE SEALANT.

2. INTERIOR DRY LOCATIONS: FINISH BOX SURFACES WITH PRIMER, AND PRIMER SEALER.

F. PULL BOXES AND JUNCTION BOXES FOR EXTERIOR AT–GRADE OR BELOW–GRADE LOCATIONS: NEMA 250/ICS 6; UL 50/514A/514B. PRECAST CONCRETE, WITH CAST IRON COVER LABELED "ELECTRIC" OR "COMMUNICATIONS" AS APPLICABLE, EXCEPT AS OTHERWISE SHOWN, BY QUICKEST OR BROOKS PRODUCTS. INSTALL ON 6 INCH BED OF PEA GRAVEL.

1. NONMETALLIC BOXES, AT LOCATIONS SHOWN: NEMA OS 2; UL 514C. CAST PVC, WITH GASKETED BOLT–ON COVER USING STAINLESS STEEL SCREWS.

G. CABINETS: CABINETS FOR PANELBOARDS, WIRING TERMINATIONS/MANAGEMENT, AND CONTROL EQUIPMENT SHALL BE FLUSH OR SURFACE MOUNTED AS SHOWN. CONSTRUCTION SHALL BE CODE–GAUGE ZINC–COATED SHEET STEEL BEARING THE UL LABEL. CABINET DOORS SHALL HAVE FLUSH CATCHES AND PIN TUMBLER LOCKS. WIRING GUTTERS OR SPACES SHALL BE PROVIDED AT TOP AND BOTTOM (MINIMUM DIMENSION 6 INCHES), AND ALONG THE SIDES (MINIMUM DIMENSION 4 INCHES). PROVIDE TERMINAL AND CONTROL CABINETS MADE BY THE MANUFACTURER OF THE PANELBOARDS, AND WITH THE SAME KEYING AND FINISH AS THE PANELBOARDS.

3. WIRE AND CABLE:

NEMA/ICEA WC–5; UL 83. CONDUCTOR SIZE AS SHOWN. CONDUCTOR SHALL BE SOFT–DRAWN COPPER, MINIMUM 98% CONDUCTIVITY. MINIMUM INSULATION RATING SHALL BE 600 V, TYPE THHN/THWN 75 DEGREES C RATING, OR TYPE XHHW 90 DEGREES C RATING. MINIMUM SIZE SHALL BE NO. 12 AWG. ALL WIRE NO. 8 AWG AND LARGER SHAL BE STRANDED.

A. PROVIDE WIRE AND CABLE MANUFACTURED WITHIN ONE YEAR OF DATE OF DELIVERY TO THE JOBSITE. DELIVER WIRE AND CABLE TO SITE IN THEIR ORIGINAL UNBROKEN PACKAGES, OR ON THEIR ORIGINAL CABLE REELS. PACKAGES AND CABLE REELS SHALL BE MARKED AND TAGGED PLAINLY WITH UL LABEL, AWG OR CIRCULAR MIL SIZE, VOLTAGE RATING, INSULATION TYPE, CONDUCTOR TYPE AND TYPE OF STRANDING, MANUFACTURER'S NAME, TRADE NAME, AND MONTH AND DATE OF MANUFACTURE.

B. USE ONLY PLATED COPPER ALLOY CONNECTORS OR LUGS, ALUMINUM CONNECTORS OR LUGS ARE NOT ACCEPTABLE. THE FOLLOWING CONNECTORS ARE APPROVED FOR COPPER CONDUCTORS:

1. WIRE NO. 10 AND SMALLER: 3M "SCOTCHLOK" OR IDEAL "SUPERNUT"

2. WIRE NO. 8 OR LARGER: SOLDERLESS CONNECTORS BY OZ GEDNEY, OR THE EQUIVALENT BY BUCHANAN, KEARNEY, OR THOMAS & BETTS.

C. TAPE CONNECTIONS MADE WITH NON–INSULATED TYPE CONNECTORS WITH RUBBER TAPE, MINIMUM 150 PERCENT THE THICKNESS OF THE CONDUCTOR INSULATION, THEN COVERED WITH SCOTCH NO. 33 TAPE, OR EQUAL.

D. COLOR CODE ALL WIRE WITH INSULATION/JACKET (FACTORY–APPLIED) COLOR FOR PHASE IDENTIFICATION (CONTINUOUS FOR CIRCUIT FROM OUTLET–TO–OUTLET, PULL BOX, OR CABINET) AS FOLLOWS:

PHASE	120/240V	208Y/120V	480Y/277V
A	BLACK	BLACK	BROWN
B	RED	RED	ORANGE
C	BLUE	BLUE	YELLOW
NEUTRAL	WHITE	WHITE	WHITE
GROUND	GREEN	GREEN	GREEN

4. WIRNG DEVICES:

NEMA WD 1, WD 6; UL 20, UL 486A. ALL WIRING DEVICES SHALL BE SPECIFICATION GRADE. COLORS SHALL BE AS SELECTED BY OWNER. TYPES SHALL BE AS FOLLOWS, EXCEPT AS OTHERWISE INDICATED:

A. RECEPTACLES: DUPLEX, THREE–WIRE GROUNDING TYPE, RATED 20A AT 125V, NEMA CONFIGURATION 5–20R. PROVIDE GFI (SELF–CONTAINED) TYPE AT LOCATIONS SHOWN. FOR EXTERIOR LOCATIONS, PROVIDE WITH WEATHERPROOF BOX, AND ALUMINUM GASKETED SPRING–SHUT COVER. HUBBEL 53XX–SERIES, OR EQUAL FROM PASS & SEYMOUR OR LEVITON.

B. SWITCHES: TOGGLE TYPE, NUMBER OF POLES AS SHOWN, QUIET TYPE, RATED 20A AT 120/277V. HUBBELL HBL 12XX–SERIES, OR EQUAL FROM PASS & SEYMOUR OR LEVITON.

1. INCANDESCENT DIMMER TYPE, AT LOCATIONS SHOWN: MODULAR SOLID–STATE TYPE, RATING AND NUMBER OF SWITCH POLES AS SHOWN, WITH CONTINUOUSLY–ADJUSTABLE ROTARY KNOB OR TOGGLE, ANODIZED ALUMINUM FACE, WITH SOFT–TAP OR OTHER QUIET ON–OFF SWITCH. HUBBELL AR–SERIES, OR EQUAL BY LEVITON.

C. PLATES: WALL PLATES SHALL BE PROVIDED FOR EVERY SWITCH, RECEPTACLE, OUTLET AND JUNCTION BOX, TELEPHONE JACK, ETC. PROVIDE PLATES WHICH MATE AND MATCH WITH THE WIRING DEVICE(S) TO WHICH THEY ARE ATTACHED. EXCEPT AS OTHERWISE SHOWN, WALL PLATES FOR INTERIOR AREAS (EXCEPT FOR FOOD–PREPARARTION AREAS) SHALL BE SMOOTH HIGH–IMPACT RESISTANT PLASTIC TO MATCH ADJACENT SURFACES; AND WALL PLATES FOR FOOD PREPARARTION AREAS SHALL BE STAINLESS STEEL.

5. SWITCHBOARDS (SEE SINGLE LINE DIAGRAM):

NEMA PB 2; UL 891. RATED AS SHOWN. COPPER BUS. SQUARE–D, OR EQUAL BY GE OR CUTLER–HAMMER.

6. DISCONNECT SWITCHES:

NEMA KS 1, UL 98, UL 198C AND 198E. RATED AS SHOWN, HEAVY DUTY TYPE, EXTERNALLY–OPERATED, QUICK–MAKE QUICK–BREAK TYPE, THREE POLE EXCEPT AS OTHERWISE SHOWN. FOR FUSIBLE TYPE, PROVIDE DUAL–ELEMENT TIME–DELAY CLASS RK–1 CURRENT LIMITING FUSES. FOR EXTERIROR LOCATIONS, AND WHERE INDICATED, PROVIDE NEMA 3R ENCLOSURES. SQUARE–D, OR EQUAL BY GE OR CUTLER–HAMMER.

7. TRANSFORMERS:

NEMA ST 20, UL 1561. DRY–TYPE GENERAL PURPOSE, 150 DEGREES C RISE AT FULL LOAD WITH 220 DEGREES C INSULATION SYSTEM. PROVIDE NEMA 3R ENCLOSURE WITH RAIN SHIELD FOR EXTERIOR APPLICATION. SQUARE–D, OR EQUAL BY GE OR CUTLER–HAMMER.

8. PANELBOARDS (SEE SINGLE LINE DIAGRAM AND PANEL SCHEDULE):

NEMA PB 1, PB 1.1, AND AB 1; UL 67. PROVIDE AS FOLLOWS, EXCEPT AS OTHERWISE INDICATED: COPPER BUS, WITH FULLY–RATED NEUTRAL; BOLT–ON MOLDED CASE CIRCUIT BREAKERS; NEMA 3R ENCLOSURE FOR OUTDOOR APPLICATION; WITH TYPEWRITTEN BRANCH CIRCUIT DIRECTORY. ALL MULTIPLE POLE CIRCUIT BREAKERS SHALL BE EQUIPPED WITH A COMMON TRIP HANDLE. SQUARE–D, OR EQUAL BY GE OR SIEMENS.

9. MOTOR CONTROLLERS:

NEMA ICS 2/ICS 6/250/AB 1/FU 1/KS 1; UL 98/198C/198E/489/508. PROVIDE MANUAL MOTOR CONTROLLERS FOR SINGLE–PHASE MOTORS RATED BELOW 2 HP, AND COMBINATION MOTOR CONTROLLERS AS SHOWN.

A. MANUAL MOTOR CONTROLLER: MANUAL MOTOR STARTING SWITCH WITH INTEGRAL THERMAL TYPE OVERLOAD PROTECTION, TOGGLE LEVER TYPE, ALLEN–BRADLEY BULLETIN 609, OR EQUAL BY SQUARE–D, GE OR CUTLER–HAMMER.

B. COMBINATION MOTOR CONTROLLERS: ENCLOSED COMBINATION STARTER, FUSIBLE DISCONNECT SWITCH TYPE, ALLEN–BRADLEY BULLETIN 512, OR EQUAL BY SQUARE–D, GE OR CUTLER–HAMMER.

10. LIGHTING (SEE LEGEND ON SHEET E–0.1):

PROVIDE ALL LIGHTING EQUIPMENT AND SYSTEMS SHOWN. ALL LIGHTING FIXTURES SHALL BE PROVIDED WITH LAMPS.

A. TIME SWITCHES: PROVIDE WITH THE FOLLOWING RATINGS AND FEATURES, AS A MINIMUM: (1) NUMBER OF POLE: AS SHOWN, PLUS AT LEAST ONE SPARE; (2) 24 HOUR DIAL, WITH 3 HOUR MINIMUM SETTING; (3) MOTOR AND CONTACT VOLTAGES AS REQUIRED; (4) CONTACTS: SINGLE THROW. CONTACT RATING: 1HP AT 120VAC AND 40A AT 277VAC, EXCEPT CONTACTS MAY BE RATED A MINIMUM OF 10A IF RELAYS OR CONTACTORS ARE CONTROLLED; (5) POWER RESERVE FEATURE: 8 HOUR SPRING–DRIVEN AUTO REWIND RESERVE POWER. PARAGON, TORK, SANGAMO, OR INTERMATIC.

B. PHOTOELECTRIC CONTROLLERS: RATED FOR CONNECTED LOAD, 20A MINIMUM. PARAGON, TORK, SANGAMO, OR EQUAL.

C. LIGHTING CONTACTORS AND RELAYS: PROVIDE MINIMUM RATING AND NUMBER OF POLES AS SHOWN (IN ADDITION, WHERE INDIVIDUAL BRANCH CIRCUITS ARE CONTROLLED, PROVIDE ONE SPARE POLE). SQUARE–D, OR EQUAL BY GE OR CUTLER–HAMMER.

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — ALBERTO R. DE LA MADRID — E15357 — Exp. date: 06-30-13 — ELECTRICAL — STATE OF CALIFORNIA

PROJECT ENGINEER — DATE 11/8/12

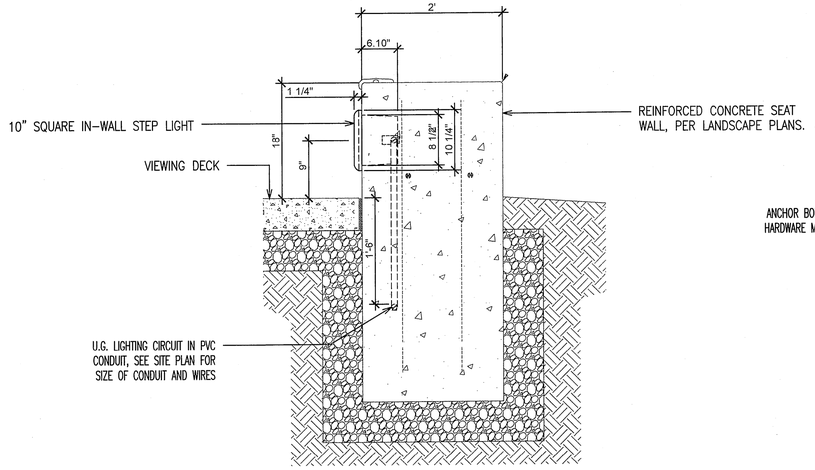
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN
MULTI-USE ENHANCEMENT PROJECT

SPECIFICATIONS

SHEET E–0.2

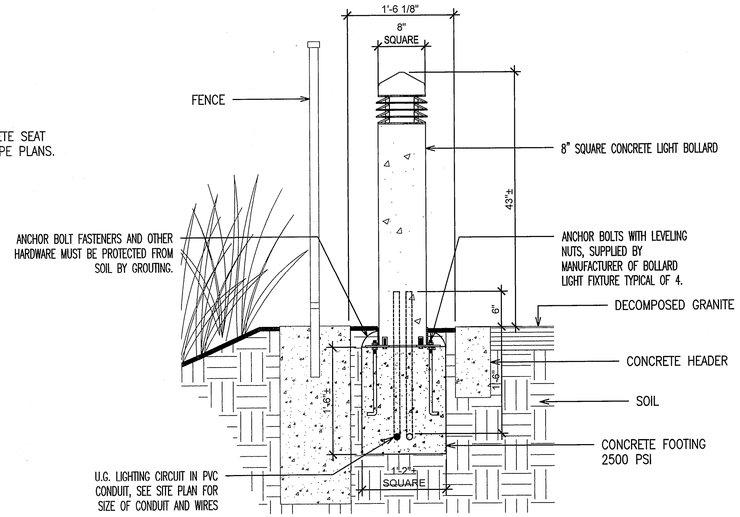
FCC0001176 | PCA EF21507000 | 2 OF 7



TYPICAL STEP LIGHT FIXTURE DETAIL

1

NO SCALE



TYPICAL BOLLARD LIGHT FIXTURE DETAIL

1

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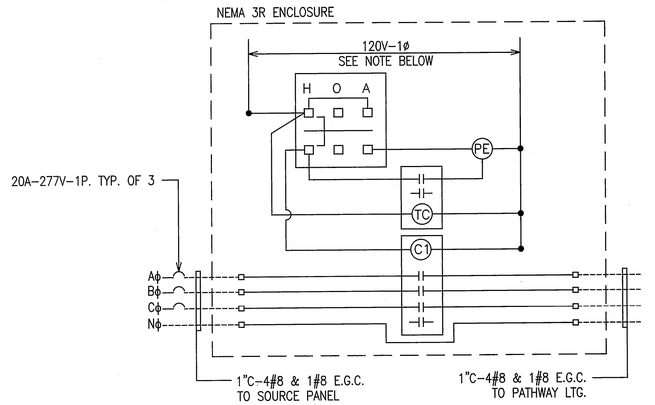


NOTE: HOMERUN THE 120V-20A CIRCUIT TO THE FOLLOWING PANEL BOARDS FOR EACH LIGHTING CONTROL PANEL.

A. CONTROL PANEL LOCATED AT THE TIDE: PANEL BOARD "L" CIRCUIT #10.
B. CONTROL PANEL LOCATED AT PUMP HOUSE: PANEL BOARD "A" CIRCUIT #4.

TYPICAL EXTERIOR LTG. CONTROL DIAGRAM

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER ALBERTO R. DE LA MERCED E15357 Exp. date: 06-30-13 ELECTRICAL STATE OF CALIFORNIA

PROJECT ENGINEER 11/8/12 DATE

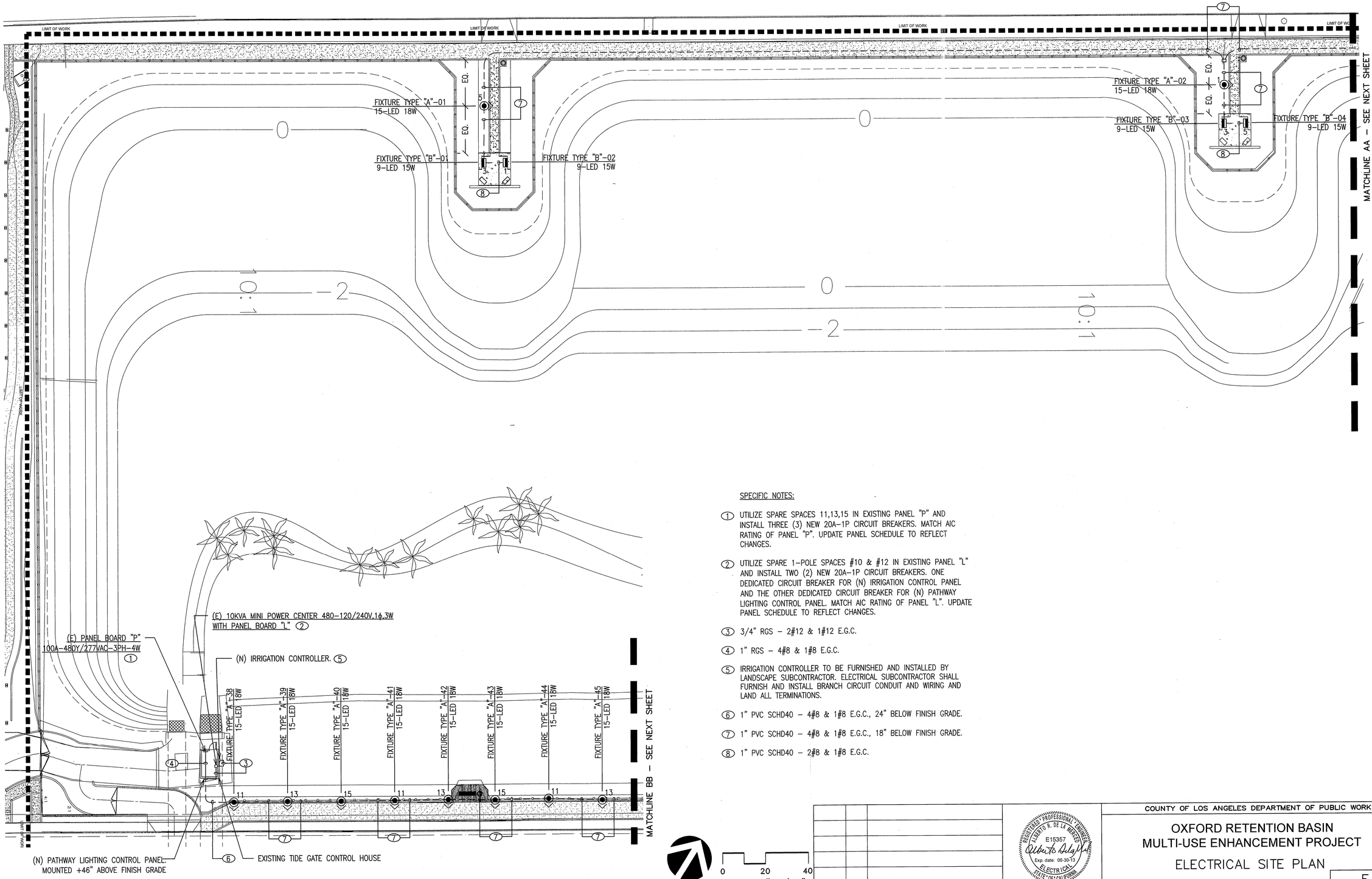
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN
MULTI-USE ENHANCEMENT PROJECT

DETAILS

SHEET E-0.3

FCC0001176 | PCA EF21507000 | 3 OF 7



SPECIFIC NOTES:

(1) UTILIZE SPARE SPACES 11,13,15 IN EXISTING PANEL "P" AND INSTALL THREE (3) NEW 20A-1P CIRCUIT BREAKERS. MATCH AIC RATING OF PANEL "P". UPDATE PANEL SCHEDULE TO REFLECT CHANGES.

(2) UTILIZE SPARE 1-POLE SPACES #10 & #12 IN EXISTING PANEL "L" AND INSTALL TWO (2) NEW 20A-1P CIRCUIT BREAKERS. ONE DEDICATED CIRCUIT BREAKER FOR (N) IRRIGATION CONTROL PANEL AND THE OTHER DEDICATED CIRCUIT BREAKER FOR (N) PATHWAY LIGHTING CONTROL PANEL. MATCH AIC RATING OF PANEL "L". UPDATE PANEL SCHEDULE TO REFLECT CHANGES.

(3) 3/4" RGS - 2#12 & 1#12 E.G.C.

(4) 1" RGS - 4#8 & 1#8 E.G.C.

(5) IRRIGATION CONTROLLER TO BE FURNISHED AND INSTALLED BY LANDSCAPE SUBCONTRACTOR. ELECTRICAL SUBCONTRACTOR SHALL FURNISH AND INSTALL BRANCH CIRCUIT CONDUIT AND WIRING AND LAND ALL TERMINATIONS.

(6) 1" PVC SCHD40 - 4#8 & 1#8 E.G.C., 24" BELOW FINISH GRADE.

(7) 1" PVC SCHD40 - 4#8 & 1#8 E.G.C., 18" BELOW FINISH GRADE.

(8) 1" PVC SCHD40 - 2#8 & 1#8 E.G.C.

DATE	MK	DESCRIPTION
		REVISIONS

REGISTERED PROFESSIONAL ENGINEER
ALBERTO R. DE LA HERRAN
E15357
Exp. date: 06-30-13
ELECTRICAL
STATE OF CALIFORNIA

PROJECT ENGINEER 11/8/12 DATE

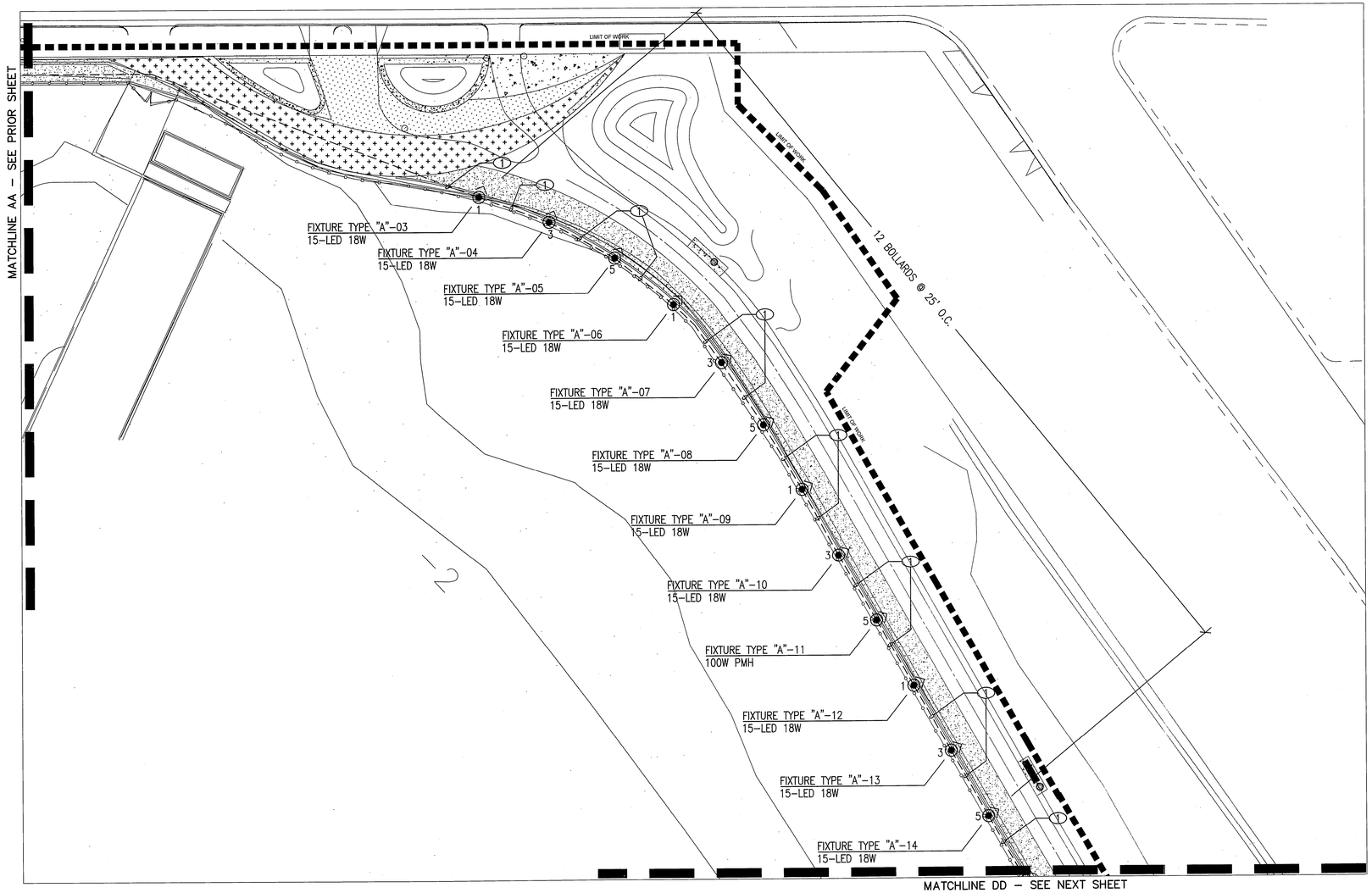
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

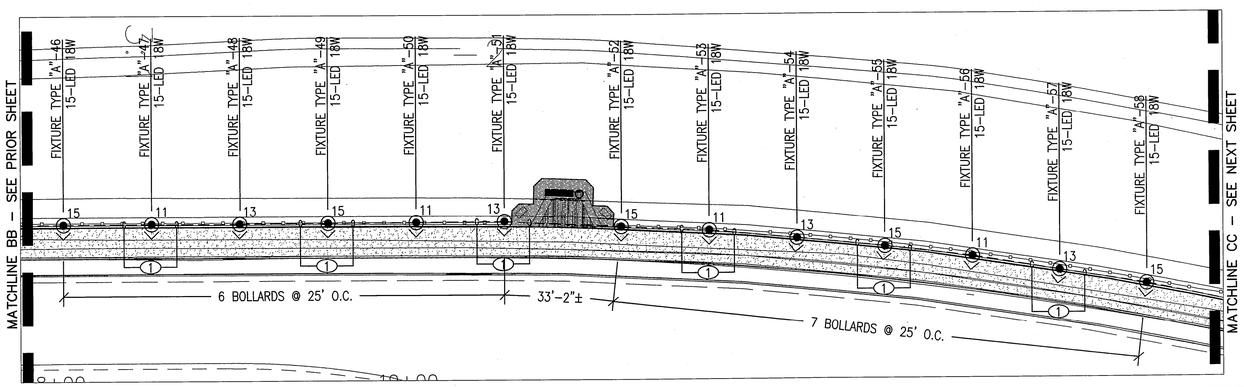
OXFORD RETENTION BASIN
MULTI-USE ENHANCEMENT PROJECT

ELECTRICAL SITE PLAN

SHEET E-1.0

FCC0001176	PCA EF21507000		4 OF 7





SPECIFIC NOTES:

(1) 1" PVC SCHD40 – 4#8 & 1#8 E.G.C., 18" BELOW FINISH GRADE.

NORTH

0 20 40

SCALE: 1"=20'–0"

DATE	MK	DESCRIPTION
		REVISIONS

REGISTERED PROFESSIONAL ENGINEER ALBERTO R. DE LA MORENA E15357 Exp. date: 06-30-13 ELECTRICAL STATE OF CALIFORNIA

PROJECT ENGINEER 11/8/12 DATE

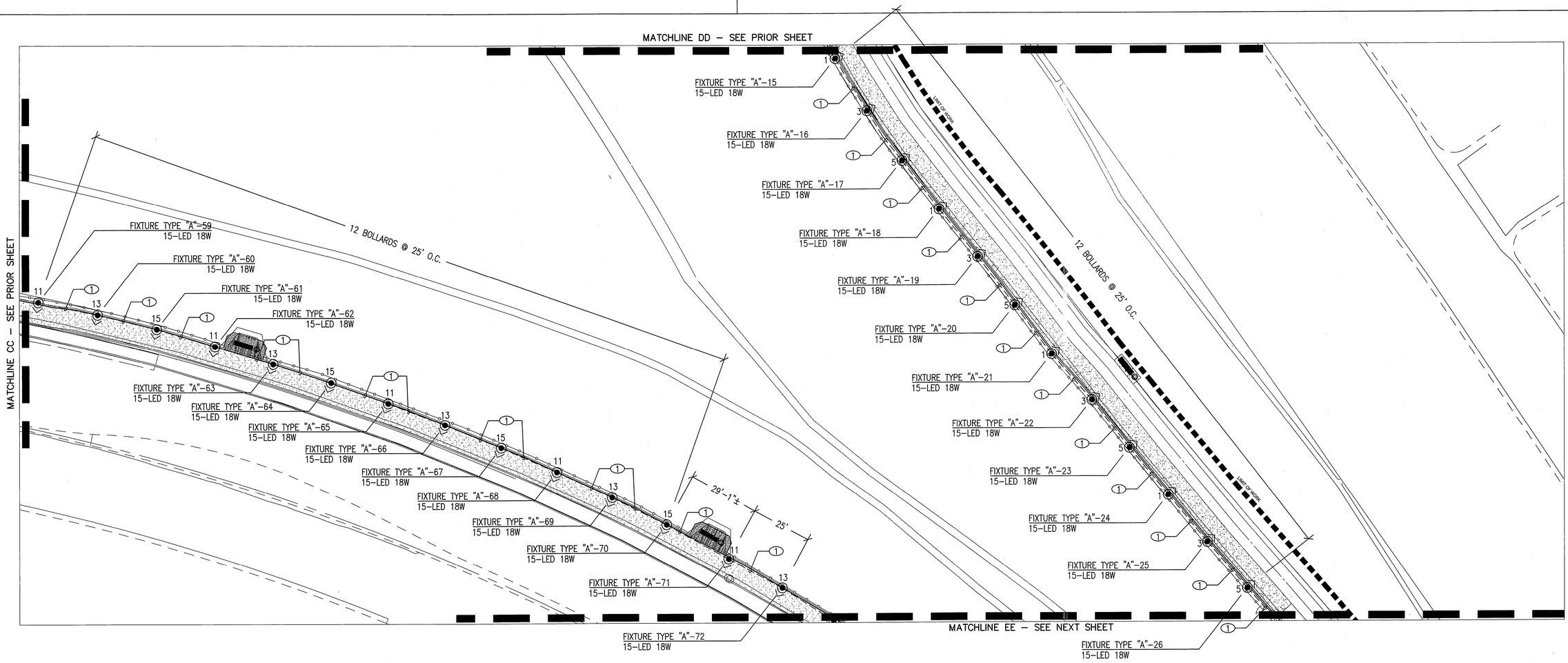
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN MULTI-USE ENHANCEMENT PROJECT

ELECTRICAL SITE PLAN

SHEET E–2.0

FCC0001176	PCA EF21507000		5 OF 7



SPECIFIC NOTES:

(1) 1" PVC SCHD40 – 4#8 & 1#8 E.G.C., 18" BELOW FINISH GRADE.

NORTH

0 20 40

SCALE: 1"=20'-0"

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER ALBERTO R. DE LA MERCED E15357 Exp. date: 06-30-13 ELECTRICAL STATE OF CALIFORNIA

11/8/12

PROJECT ENGINEER / / DATE

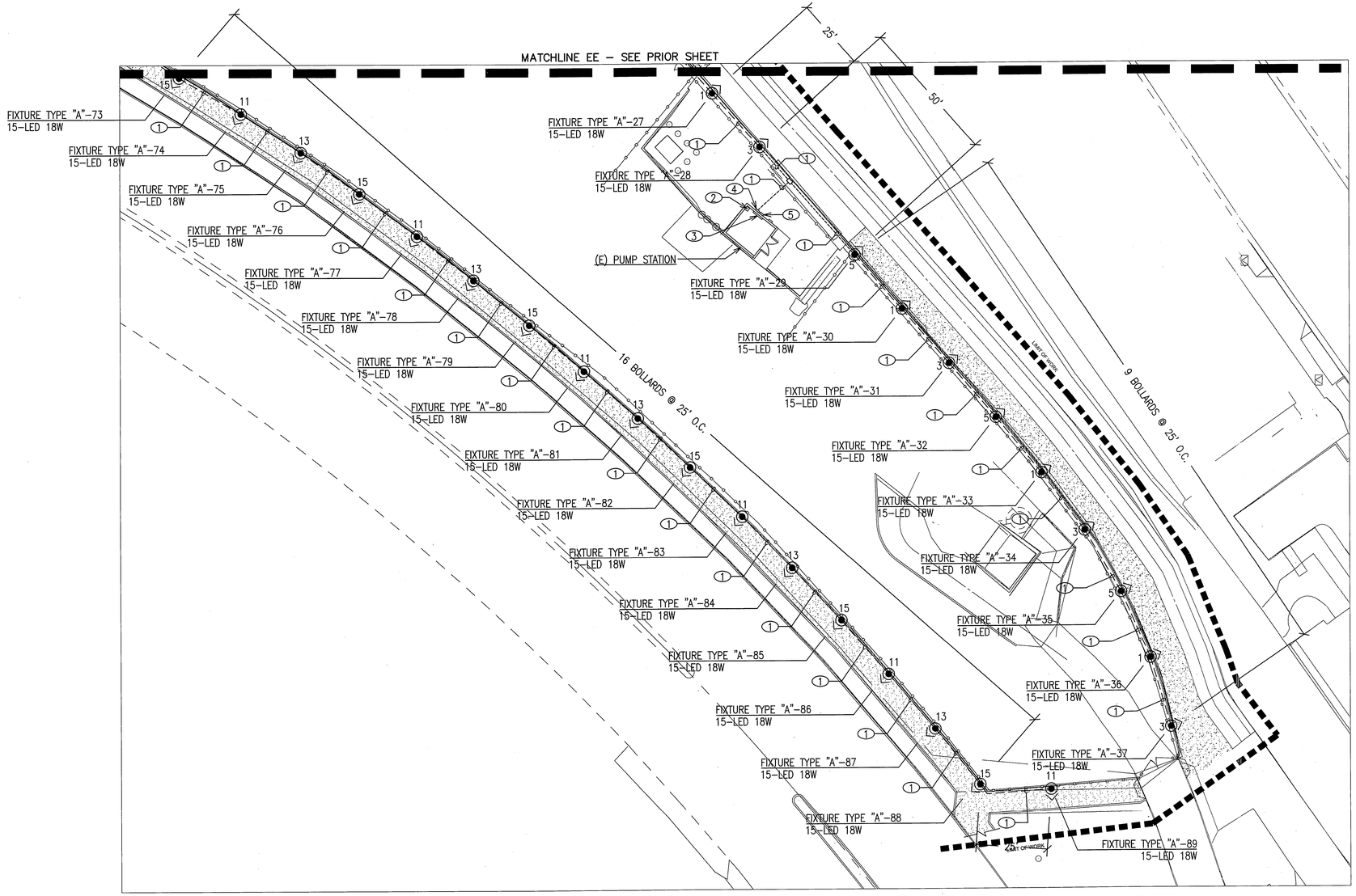
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN MULTI-USE ENHANCEMENT PROJECT

ELECTRICAL SITE PLAN

SHEET E-3.0

FCC0001176 | PCA EF21507000 | 6 OF 7



SPECIFIC NOTES:

1. 1" PVC SCHD40 – 4#8 & 1#8 E.G.C., 18" BELOW FINISH GRADE.
2. (E) 15KVA MINI POWER CENTER 480–120/240V,1ϕ,3W WITH PANEL BOARD "A"
3. (E) 200A–480Y/277VAC–3ϕ–4W SYSTEM IN 6"x6"x4' WIRE GUTTER.
4. (N) PATHWAY LIGHTING CONTROL PANEL. MOUNTED +46" ABOVE FINISH GRADE
5. (N) PANEL BOARD "P1".

NORTH

0 20 40
SCALE: 1"=20'-0"

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER
ALBERTO R. DE LA MERCED
E15357
Exp. date: 06-30-13
ELECTRICAL
STATE OF CALIFORNIA

11/8/12
PROJECT ENGINEER DATE

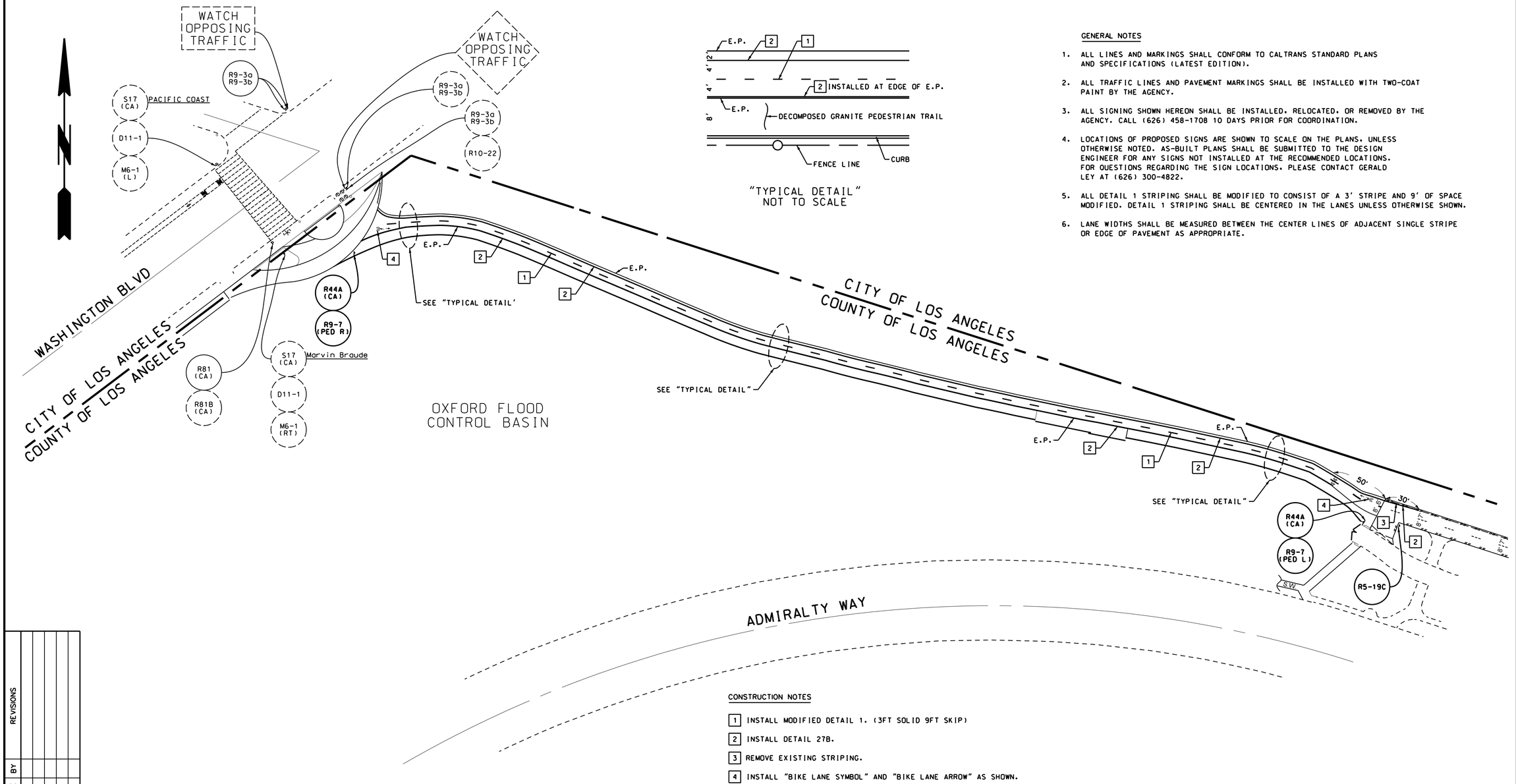
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN MULTI-USE ENHANCEMENT PROJECT

ELECTRICAL SITE PLAN

SHEET E-4.0

FCC0001176	PCA EF21507000		7 OF 7



"TYPICAL DETAIL"
NOT TO SCALE

GENERAL NOTES

1. ALL LINES AND MARKINGS SHALL CONFORM TO CALTRANS STANDARD PLANS AND SPECIFICATIONS (LATEST EDITION).
2. ALL TRAFFIC LINES AND PAVEMENT MARKINGS SHALL BE INSTALLED WITH TWO-COAT PAINT BY THE AGENCY.
3. ALL SIGNING SHOWN HEREON SHALL BE INSTALLED. RELOCATED. OR REMOVED BY THE AGENCY. CALL (626) 458-1708 10 DAYS PRIOR FOR COORDINATION.
4. LOCATIONS OF PROPOSED SIGNS ARE SHOWN TO SCALE ON THE PLANS. UNLESS OTHERWISE NOTED. AS-BUILT PLANS SHALL BE SUBMITTED TO THE DESIGN ENGINEER FOR ANY SIGNS NOT INSTALLED AT THE RECOMMENDED LOCATIONS. FOR QUESTIONS REGARDING THE SIGN LOCATIONS. PLEASE CONTACT GERALD LEY AT (626) 300-4822.
5. ALL DETAIL 1 STRIPING SHALL BE MODIFIED TO CONSIST OF A 3' STRIPE AND 9' OF SPACE MODIFIED. DETAIL 1 STRIPING SHALL BE CENTERED IN THE LANES UNLESS OTHERWISE SHOWN.
6. LANE WIDTHS SHALL BE MEASURED BETWEEN THE CENTER LINES OF ADJACENT SINGLE STRIPE OR EDGE OF PAVEMENT AS APPROPRIATE.

CONSTRUCTION NOTES

1. INSTALL MODIFIED DETAIL 1. (3FT SOLID 9FT SKIP)
2. INSTALL DETAIL 27B.
3. REMOVE EXISTING STRIPING.
4. INSTALL "BIKE LANE SYMBOL" AND "BIKE LANE ARROW" AS SHOWN.

•	PROJECT	CAD FILE NAME	DATE	BY	REVISIONS

DRAWN	SEAN RYAN
SPOTTED	
SUPERVISED BY	GERALD LEY
REVIEWED BY	DANIEL QUINTANA

REGISTERED PROFESSIONAL ENGINEER
GERALD LEY
NO. C63948
CIVIL
STATE OF CALIFORNIA

SUBMITTED: CIVIL ENGINEER NO. C63948
BY: _____ DATE: _____

RECOMMENDED:
BY: _____ DATE: _____

APPROVED:
GAIL FARBER, DIRECTOR OF PUBLIC WORKS
BY: _____ DATE: _____
ASSISTANT DEPUTY DIRECTOR

LOS ANGELES COUNTY
DEPARTMENT OF PUBLIC WORKS
TRAFFIC AND LIGHTING DIVISION

SIGNING AND STRIPING PLAN

MARVIN BRAUDE BIKE PATH

ADMIRALTY WAY TO WASHINGTON BLVD

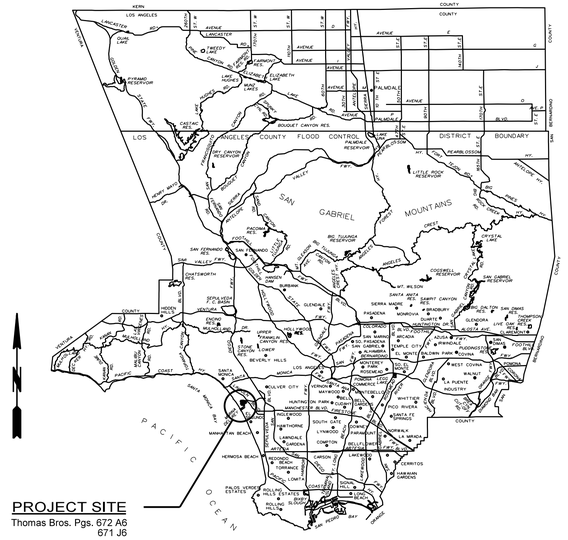
RDC0015513	SHT. 1 OF 1	SCALE:1" = 40'	G.D. 1267

T.G. 671-J7

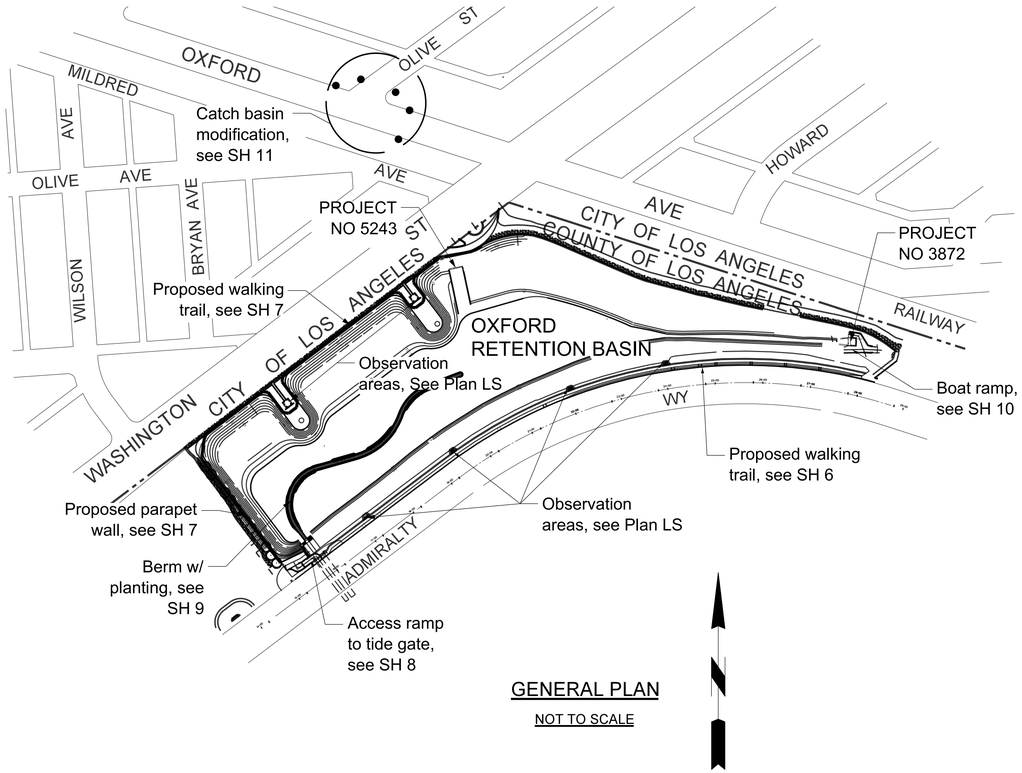
PLAN SP

COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN
MULTI-USE ENHANCEMENT PROJECT



LOCATION MAP



GENERAL PLAN

NOT TO SCALE

INDEX TO PROJECT PLANS

UTILITIES

WATER	CITY OF LOS ANGELES DEPT OF WATER & POWER
GAS	THE GAS CO.
ELECTRIC	SO. CALIF. EDISON
TELEPHONE	AT&T
SEWER	CITY OF LOS ANGELES BUREAU OF SANITATION

REFERENCES

PROJECT NO. 3872, UNIT 1	DWG. NO.470-3872-D3.1-13
PROJECT NO. 3872, UNIT 1, AUTOMATIC FLAPGATES	DWG.NO.470-3872-D8.1-3
PROJECT NO. 5243	DWG.NO. 364-5243-D2.1-25
OXFORD RETENTION BASIN AND PUMP STATION	DWG.NO.507 D1.1-22
OXFORD RETENTION BASIN AND OUTLET SYSTEM IMPROVEMENT	DWG.NO.507 D3.1-15
PROJECT NO 3872 MARINA DEL RAY LOW FLOW DIVERSION	DWG.NO. 364-5243-D10.1-11
SURVEY NOTES	PWFB 1015-654, 764, 1099 to 1102 PWLB 1015-996 to 1001
ADMIRALTY WAY SETTLEMENT REPAIR PROJECT	PROJ ID NO. RDC0015061

CADD PROJECT FILE NAME

CHECKER J. LI

DESIGNER C. CHEN

DRAFTER C. CHEN

TWO DAYS BEFORE YOU DIG

CALL USA TOLL FREE

1-800-227-2600

APPROVED GAIL FARBER DIRECTOR OF PUBLIC WORKS

BY _____ DEPUTY DIRECTOR DATE

RECOMMENDED

BY _____ ASSISTANT DEPUTY DIRECTOR DATE

SUBMITTED

BY _____ DATE

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — CHARLES C. CHEN — NO. C63209 — CIVIL — STATE OF CALIFORNIA

PROJECT ENGINEER DATE

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN
MULTI-USE ENHANCEMENT PROJECT

TITLE SHEET

FCC0001176	JOB JX0039	DWG 507-D4.1	SHEET 1 OF 13

TS-OF 07/05

DATE: $DATE$ TIME: $TIME$ FILE: $FILEL$

GENERAL NOTES

1. ELEVATIONS SHOWN ARE IN FEET ABOVE MEAN SEA LEVEL BASED ON L.A. CITY 1980 ADJUSTMENT, NGVD 1929 DATUM
2. CENTERLINE STATIONS ARE AS SHOWN ON PLANS.
3. STATIONS AND INVERT ELEVATIONS OF PIPE INLETS SHOWN ON THE PROFILES ARE AT THE INSIDE FACE OF THE CONDUIT, UNLESS OTHERWISE SHOWN.
4. BENCHING OF THE EMBANKMENTS SHALL BE AS SPECIFIED IN SECTION 300-4.4 OF THE GREEN BOOK.
5. ALL EXISTING UTILITIES SHOWN ON THE PLANS ARE THE PROPERTY OF THE OWNERS LISTED ON SHEET 1, UNLESS OTHERWISE NOTED.
6. EXISTING UTILITIES SHALL BE MAINTAINED IN PLACE BY THE CONTRACTOR, UNLESS OTHERWISE NOTED, AND ALL UTILITIES CROSSING THE TRENCH SHALL BE TEMPORARILY SUPPORTED TO THE SATISFACTION OF THE OWNER.
7. THE CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS TO DETERMINE THE DEPTH AND LOCATION OF EXISTING UTILITIES WHERE SO INDICATED BY THE SYMBOL △.
8. ALL RESURFACING, CURBS, GUTTERS, SIDEWALKS, DRIVEWAYS AND OTHER EXISTING IMPROVEMENTS TO BE RECONSTRUCTED SHALL BE CONSTRUCTED AT THE SAME ELEVATION AND LOCATION AS THE EXISTING IMPROVEMENTS, UNLESS OTHERWISE NOTED.
9. THE WORK SHOWN ON THESE DRAWINGS REQUIRES THE PRIME CONTRACTOR TO HAVE A VALID CLASS A OR C42 LICENSE ISSUED BY THE STATE OF CALIFORNIA.
10. ALL FIELD BOOK REFERENCES ARE TO LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS FIELD BOOKS, UNLESS OTHERWISE NOTED.

STRUCTURAL NOTES

1. DIMENSIONS FROM FACE OF CONCRETE TO STEEL ARE TO CENTER OF BAR, UNLESS OTHERWISE SHOWN.
2. CONCRETE DIMENSIONS SHALL BE MEASURED HORIZONTALLY OR VERTICALLY ON THE PROFILE, AND PARALLEL TO OR AT RIGHT ANGELS (OR RADIALLY) TO CENTER LINE OF CONDUIT ON THE PLAN EXCEPT AS OTHERWISE SHOWN.
3. ALL BAR BENDS AND HOOKS SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE'S "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", LATEST EDITION, SECTION 7.2.
4. PLACING OF REINFORCEMENT SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE'S "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", LATEST EDITION, SECTION 7.3
5. TRANSVERSE CONSTRUCTION JOINTS SHALL NOT BE PLACED WITHIN 30 INCHES OF MANHOLE OR JUNCTION STRUCTURE OPENINGS.
6. TRANSVERSE CONSTRUCTION JOINTS IN WALLS AND SLABS SHALL BE IN THE SAME PLANE. NO STAGGERING OF JOINTS WILL BE PERMITTED. TRANSVERSE CONSTRUCTION JOINTS SHALL BE NORMAL OR RADIAL TO THE CENTER LINE OF CONSTRUCTION.
7. THE TRANSVERSE REINFORCING BARS SHALL TERMINATE ONE AND ONE-HALF INCHES FROM THE CONCRETE SURFACES UNLESS OTHERWISE SHOWN ON THE STRUCTURAL DETAILS.
8. EXPOSED SURFACES OF CONCRETE MEMBERS SHALL BE ROUNDED OR BEVELED.
9. NO SPLICES IN TRANSVERSE BARS REINFORCEMENT WILL BE PERMITTED OTHER THAN SHOWN ON THE STRUCTURAL DETAILS WITHOUT APPROVAL OF THE ENGINEER. NO MORE THAN TWO SPLICES WILL BE PERMITTED IN ANY LONGITUDINAL BAR BETWEEN TRANSVERSE JOINTS. SPLICES SHALL BE STAGGERED.
10. LONGITUDINAL BARS SHALL BE LAPPED 20 BAR DIAMETERS AT SPLICES. TRANSVERSE BARS SHALL BE LAPPED 30 BAR DIAMETERS AT SPLICES.
11. LONGITUDINAL STEEL SHALL TERMINATE TWO INCHES FROM TRANSVERSE CONSTRUCTION JOINTS.
12. TRANSVERSE JOINTS SHALL BE SPACED NOT TO EXCEED 50 FEET NOR BE LESS THAN 10 FEET, MEASURED ALONG THE CENTERLINE OF CONSTRUCTION, EXCEPT AS OTHERWISE SHOWN ON THE PLANS.
13. AT THE BEGINNING AND ENDING OF ALL POURS, A COMPLETE CURTAIN OF MAIN REINFORCEMENTS SHALL SHALL BE PLACED THREE INCHES FROM THE TRANSVERSE CONSTRUCTION JOINTS.
14. ALL REBAR USED IN CONSTRUCTION SHALL BE EPOXEY COATED IN CONFORMANCE WITH ASTM SPECIFICATION A775M AND FIELD INSTALLED IN CONFORMANCE WITH ASTM SPECIFICATION D3963/D3963M

INDEX TO STANDARD PLANS

LACDPW

STD. PLAN	TITLE
3090-1	CRITERIA FOR THE DESIGN OF SHORING FOR EXCAVATIONS
3091-1	SAMPLE SHEET FOR USE AS A GUIDE IN PREPARING CALCULATIONS FOR SHORING OF EXCAVATIONS
3093-1	UNIFIED SOIL CLASSIFICATION SYSTEM
6002-1	PORTABLE SECURITY FENCE FOR OPEN TRENCHES
6008-1	MINIMUM PUBLIC SAFETY REQUIREMENT FOR OPEN EXCAVATIONS

SPPWC - 2009 EDITION

STD. PLAN	TITLE
120-1	CURB AND GUTTER BARRIER
303-3	CURBSIDE GRATING CATCH BASIN
314-3	MODIFICATIONS FOR SIDE OPENING CATCH BASIN
335-2	PIPE CONNECTIONS TO EXISTING STORM DRAINS
381-2	ABANDONMENT SEALS FOR MANHOLES AND INLETS
600-3	CHAIN LINK FENCE AND GATES
606-3	METAL HAND RAILING
610-3	REINFORCED CONCRETE RETAINING WALL TYPE 1
616-3	REINFORCED CONCRETE RETAINING WALL TYPE 7
617-3	RETAINING WALL DETAILS

CONCRETE REMOVAL NOTES

CONCRETE REMOVAL SHALL BE DONE IN THE FOLLOWING SEQUENCE:

A. WHERE THE PLAN INDICATE THE EXISTING CONCRETE IS TO BE REMOVED AND THE EXISTING REINFORCEMENT IS REQUIRED TO EXTEND THROUGH THE NEW JOINT, CONCRETE SHALL BE REMOVED IN THE FOLLOWING SEQUENCE:

1. THE CONTRACTOR SHALL MAKE A SUFFICIENT NUMBER OF EXPLORATORY HOLES IN THE EXISTING SLAB TO VERIFY HORIZONTAL SPACING AND CONCRETE COVER OVER EXISTING REINFORCEMENT. THE DEPTH OR EXACT LOCATION OF SAW CUTS MAY VARY AS DETERMINED BY THE ENGINEER IN THE FIELD BASED ON INFORMATION OBTAINED FROM EXPLORATORY HOLES.
2. A SAW CUT SHALL BE MADE ONE AND ONE-HALF INCHES DEEP AT THE REMOVAL LIMITS. CARE SHALL BE EXERCISED IN SAWING AT THE REMOVAL LIMITS SO AS NOT TO CUT THE REINFORCING STEEL IN THE REMAINING SLAB. THE EXISTING REINFORCING STEEL SHALL BE RETAINED AND EXTENDED INTO THE NEW CONSTRUCTION AS INDICATED ON THE PLANS. ANY STEEL INADVERTENTLY CUT OR DAMAGED SHALL BE REPLACED WITH DOWELING AT CONTRACTORS EXPENSE.
3. USING HAND-HELD EQUIPMENT, CAREFULLY REMOVE THE CONCRETE FOR THE FULL DEPTH OF THE SLAB AND FOR A MINIMUM DISTANCE FROM THE SAW CUT EQUAL TO THE LONGEST EXTENSION OF THE EXISTING BARS TO BE EXTENDED INTO THE NEW CONSTRUCTION. THIS EXTENSION SHALL BE 30 BAR DIAMETERS, UNLESS OTHERWISE NOTED.
4. EXISTING REINFORCEMENT SHALL BE CUT TO THE REQUIRED BAR EXTENSIONS.
5. THE REMAINING CONCRETE MAY BE REMOVED BY ANY SUITABLE METHOD UPON APPROVAL OF THE ENGINEER, WHO SHALL BE THE SOLE JUDGE OF THE USE OF ANY CONCRETE REMOVAL EQUIPMENT, EXPLOSIVE, WRECKING BALL, OR OTHER SIMILAR DEVICES. METHODS AND EQUIPMENT WHICH ARE LIKELY TO DAMAGE THE CONCRETE TO BE LEFT IN PLACE SHALL NOT BE USED.

STRUCTURAL DESIGN CRITERIA

L.A.C.F.C.D. STRUCTURAL DESIGN MANUAL
DATED APRIL 1982

LIVE LOAD

HS 20-44 unless otherwise noted.

DEAD LOAD

Earth load per Marston's formula: w= 130 pcf
Ku=Ku' =0.150
Bd=Outside width of box plus 3 feet
Side earth:
Rubber dam EFP = 60 pcf
Internal water pressure: 62.4 psf per foot of depth
Weight of concrete: 150 pcf

ALLOWABLE STRESSES

f'c=4000 psi at 28 days
fc =1800 psi
fs =24,000 psi
n =8
Shear and bond stresses per A.C.I. 318-63

DRAFTER C. CHEN | DESIGNER C. CHEN | CHECKER | CADD PROJECT FILE NAME | REVIEWED BY | DATE

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — CHARLES C. CHEN — NO. C63209 — CIVIL — STATE OF CALIFORNIA

PROJECT ENGINEER DATE

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

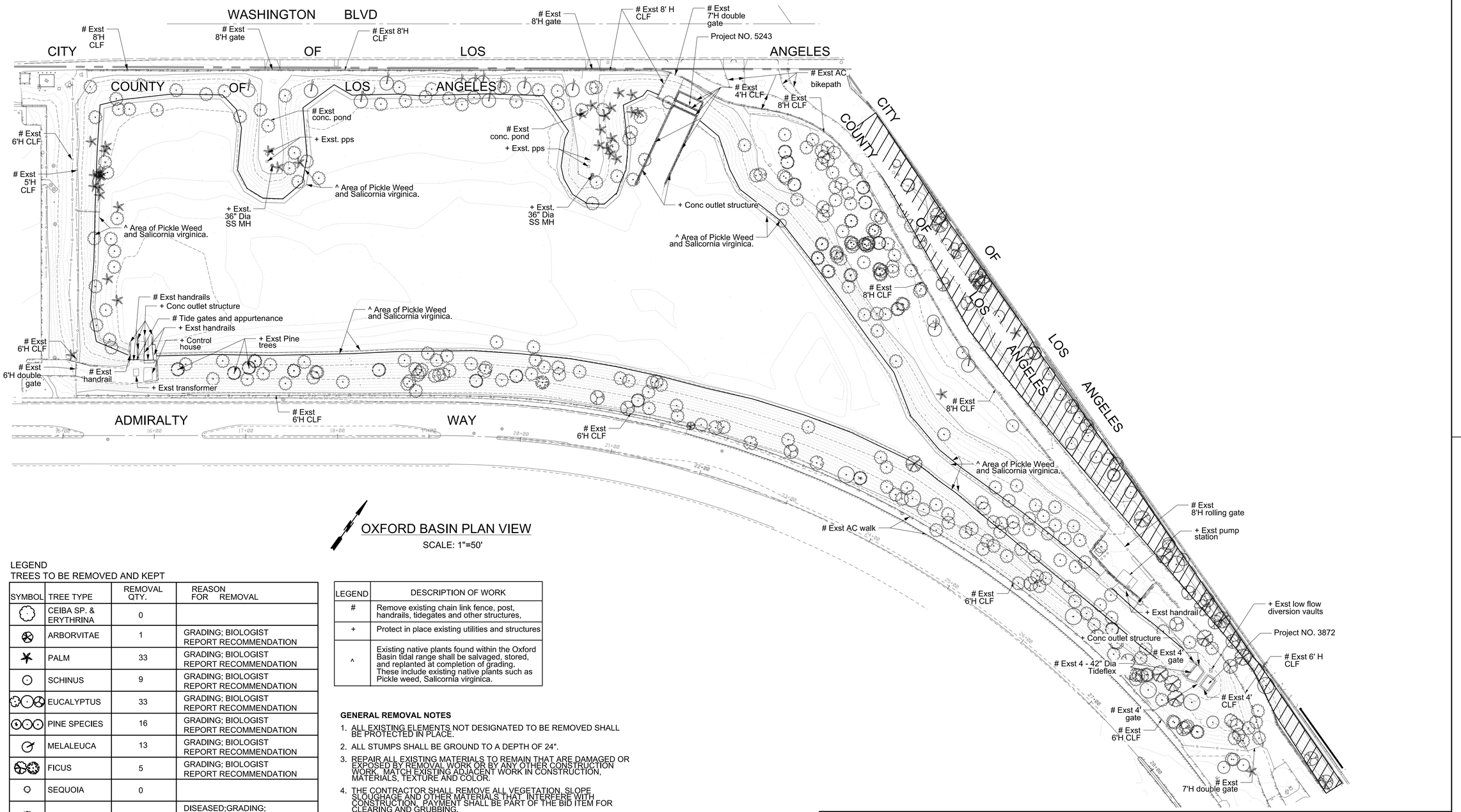
OXFORD RETENTION BASIN
MULTI-USE ENHANCEMENT PROJECT

GENERAL NOTES, STRUCTURAL NOTES, STRUCTURAL DESIGN CRITERIA AND INDEX TO STANDARD PLANS

FCC0001176	JOB JX0039	DWG 507-D4.2	SHEET 2 OF 13

PS-NOTES-DF 08/03

DATE, $DATE$ TIME, FILE, $TIME$ $FILE$



OXFORD BASIN PLAN VIEW

SCALE: 1"=50'

LEGEND

TREES TO BE REMOVED AND KEPT

SYMBOL	TREE TYPE	REMOVAL QTY.	REASON FOR REMOVAL
	CEIBA SP. & ERYTHRINA	0	
	ARBORVITAE	1	GRADING; BIOLOGIST REPORT RECOMMENDATION
	PALM	33	GRADING; BIOLOGIST REPORT RECOMMENDATION
	SCHINUS	9	GRADING; BIOLOGIST REPORT RECOMMENDATION
	EUCALYPTUS	33	GRADING; BIOLOGIST REPORT RECOMMENDATION
	PINE SPECIES	16	GRADING; BIOLOGIST REPORT RECOMMENDATION
	MELALEUCA	13	GRADING; BIOLOGIST REPORT RECOMMENDATION
	FICUS	5	GRADING; BIOLOGIST REPORT RECOMMENDATION
	SEQUOIA	0	
	MYOPORUM	±290	DISEASED;GRADING; BIOLOGIST REPORT RECOMMENDATION
REMOVAL TOTAL		400	
	PROTECT IN PLACE	KEEP ALL TREES & SHRUBS IN THIS ZONE EXCEPT WHERE NOTED.	

LEGEND	DESCRIPTION OF WORK
#	Remove existing chain link fence, post, handrails, tidegates and other structures,
+	Protect in place existing utilities and structures
^	Existing native plants found within the Oxford Basin tidal range shall be salvaged, stored, and replanted at completion of grading. These include existing native plants such as Pickle weed, Salicornia virginica.

GENERAL REMOVAL NOTES

1. ALL EXISTING ELEMENTS NOT DESIGNATED TO BE REMOVED SHALL BE PROTECTED IN PLACE.
2. ALL STUMPS SHALL BE GROUND TO A DEPTH OF 24".
3. REPAIR ALL EXISTING MATERIALS TO REMAIN THAT ARE DAMAGED OR EXPOSED BY REMOVAL WORK OR BY ANY OTHER CONSTRUCTION WORK. MATCH EXISTING ADJACENT WORK IN CONSTRUCTION, MATERIALS, TEXTURE AND COLOR.
4. THE CONTRACTOR SHALL REMOVE ALL VEGETATION, SLOPE SLOUGHAGE AND OTHER MATERIALS THAT INTERFERE WITH CONSTRUCTION. PAYMENT SHALL BE PART OF THE BID ITEM FOR CLEARING AND GRUBBING.

DRAFTER C. CHEN
DESIGNER C. CHEN
CHECKER J. LI
CADD PROJECT FILE NAME
REVIEWED BY
DATE

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER
CHARLES C. CHEN
NO. C63209
CIVIL
STATE OF CALIFORNIA

PROJECT ENGINEER DATE

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

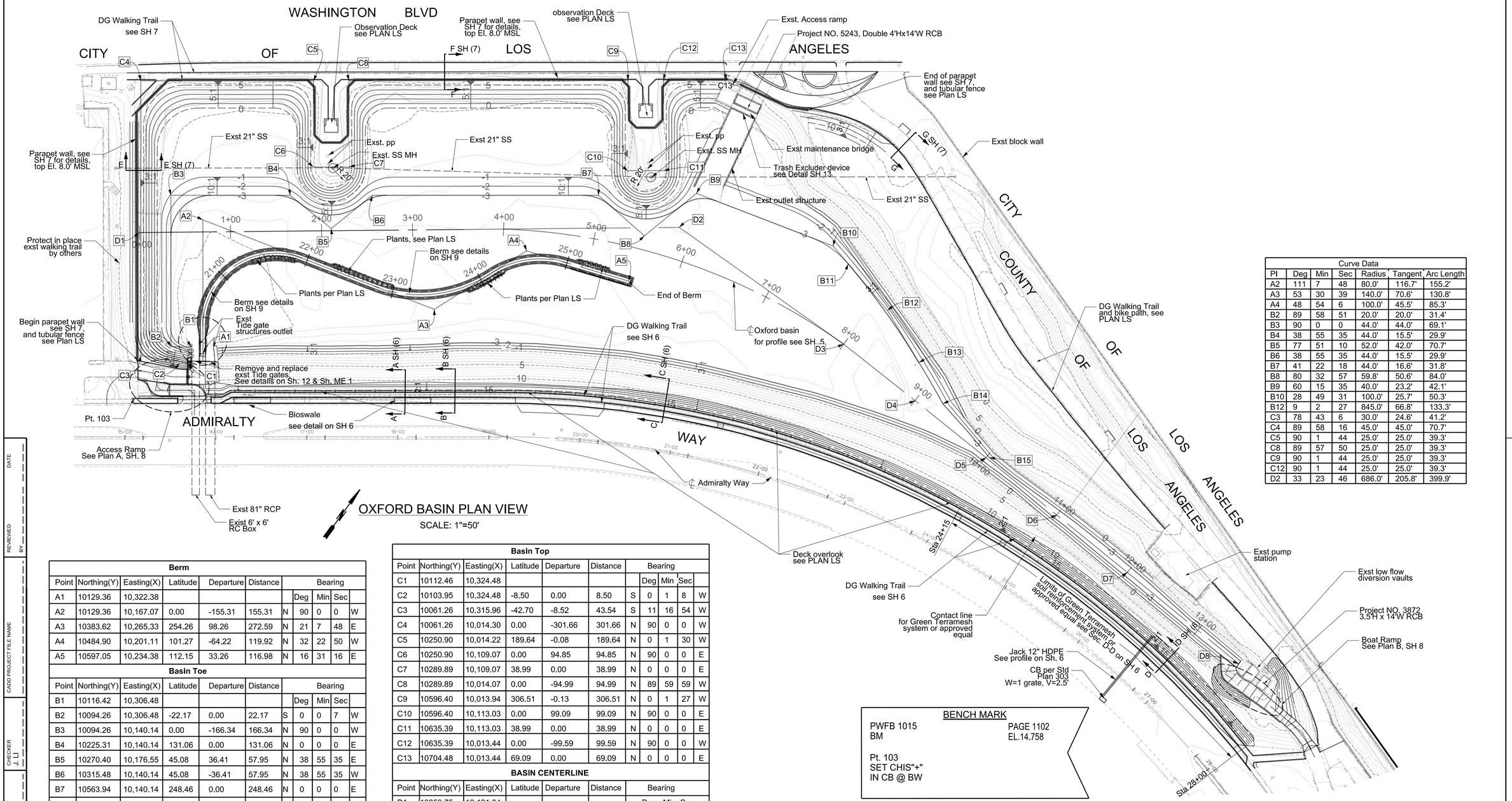
OXFORD RETENTION BASIN
MULTI-USE ENHANCEMENT PROJECT

SITE PLAN
EXISTING FACILITIES

FCC0001176 | JOB JX0039 | DWG 507-D4.3 | SHEET 3 OF 13

PS-OF 07/05

DATE. $DATE$ TIME. FILE. $TIME$ $FILE$



OXFORD BASIN PLAN VIEW

SCALE: 1"=50'

Curve Data						
PI	Deg	Min	Sec	Radius	Tangent	Arc Length
A2	111	7	48	80.0'	116.7'	155.2'
A3	53	30	39	140.0'	70.6'	130.8'
A4	48	54	6	100.0'	45.5'	85.3'
B2	89	58	51	20.0'	20.0'	31.4'
B3	90	0	0	44.0'	44.0'	69.1'
B4	38	55	35	44.0'	15.5'	29.9'
B5	77	51	10	52.0'	42.0'	70.7'
B6	38	55	35	44.0'	15.5'	29.9'
B7	41	22	18	44.0'	16.6'	31.8'
B8	80	32	57	59.8'	50.6'	84.0'
B9	60	15	35	40.0'	23.2'	42.1'
B10	28	49	31	100.0'	25.7'	50.3'
B12	9	2	27	845.0'	66.8'	133.3'
C3	78	43	6	30.0'	24.6'	41.2'
C4	89	58	16	45.0'	45.0'	70.7'
C5	90	1	44	25.0'	25.0'	39.3'
C8	89	57	50	25.0'	25.0'	39.3'
C9	90	1	44	25.0'	25.0'	39.3'
C12	90	1	44	25.0'	25.0'	39.3'
D2	33	23	46	686.0'	205.8'	399.9'

Berm

Point	Northing(Y)	Easting(X)	Latitude	Departure	Distance	Bearing				
							Deg	Min	Sec	
A1	10129.36	10,322.38								
A2	10129.36	10,167.07	0.00	-155.31	155.31	N	90	0	0	W
A3	10383.62	10,265.33	254.26	98.26	272.59	N	21	7	48	E
A4	10484.90	10,201.11	101.27	-64.22	119.92	N	32	22	50	W
A5	10597.05	10,234.38	112.15	33.26	116.98	N	16	31	16	E

Basin Toe

Point	Northing(Y)	Easting(X)	Latitude	Departure	Distance	Bearing				
							Deg	Min	Sec	
B1	10116.42	10,306.48								
B2	10094.26	10,306.48	-22.17	0.00	22.17	S	0	0	7	W
B3	10094.26	10,140.14	0.00	-166.34	166.34	N	90	0	0	W
B4	10225.31	10,140.14	131.06	0.00	131.06	N	0	0	0	E
B5	10270.40	10,176.55	45.08	36.41	57.95	N	38	55	35	E
B6	10315.48	10,140.14	45.08	-36.41	57.95	N	38	55	35	W
B7	10563.94	10,140.14	248.46	0.00	248.46	N	0	0	0	E
B8	10614.41	10,184.59	50.47	44.45	67.25	N	41	22	18	E
B9	10671.67	10,137.93	57.25	-46.66	73.86	N	39	10	39	W
B10	10821.82	10,195.82	150.16	57.89	160.93	N	21	4	56	E
B11	10915.92	10,323.91	94.10	128.09	158.93	N	53	41	52	E
B12	10881.43	10,266.63	-34.49	-57.28	66.86	S	58	56	54	W
B13	10915.92	10,323.91	34.49	57.28	66.86	N	58	56	54	E
B14	10942.25	10,369.12	26.33	45.21	52.32	N	59	46	47	E
B15	10995.56	10,426.06	53.31	56.94	78.00	N	46	53	21	E

Basin Top

Point	Northing(Y)	Easting(X)	Latitude	Departure	Distance	Bearing				
							Deg	Min	Sec	
C1	10112.46	10,324.48								
C2	10103.95	10,324.48	-8.50	0.00	8.50	S	0	1	8	W
C3	10061.26	10,315.96	-42.70	-8.52	43.54	S	11	16	54	W
C4	10061.26	10,014.30	0.00	-301.66	301.66	N	90	0	0	W
C5	10250.90	10,014.22	189.64	-0.08	189.64	N	0	1	30	W
C6	10250.90	10,109.07	0.00	94.85	94.85	N	90	0	0	E
C7	10289.89	10,109.07	38.99	0.00	38.99	N	0	0	0	E
C8	10289.89	10,014.07	0.00	-94.99	94.99	N	89	59	59	W
C9	10596.40	10,013.94	306.51	-0.13	306.51	N	0	1	27	W
C10	10596.40	10,113.03	0.00	99.09	99.09	N	90	0	0	E
C11	10635.39	10,113.03	38.99	0.00	38.99	N	0	0	0	E
C12	10635.39	10,013.44	0.00	-99.59	99.59	N	90	0	0	W
C13	10704.48	10,013.44	69.09	0.00	69.09	N	0	0	0	E

BASIN CENTERLINE

Point	Northing(Y)	Easting(X)	Latitude	Departure	Distance	Bearing				
							Deg	Min	Sec	
D1	10059.75	10,181.04								
D2	10652.67	10,175.33	592.93	-5.70	592.95	N	0	33	5	W
D3	10833.12	10,303.48	180.45	128.15	221.32	N	35	22	54	E
D4	10911.72	10,365.60	78.61	62.11	100.18	N	38	18	57	E
D5	10989.63	10,428.29	77.91	62.70	100.00	N	38	49	35	E
D6	11067.33	10,491.24	77.70	62.95	100.00	N	39	0	43	E
D7	11144.92	10,554.33	77.58	63.09	100.00	N	39	7	6	E
D8	11267.29	10,654.80	122.38	100.46	158.33	N	39	23	1	E

BENCH MARK

PWFB 1015
BM

Pt. 103
SET CHIS"+"
IN CB @ BW

PAGE 1102
EL.14.758

DATE	MK	DESCRIPTION
		REVISIONS

PROFESSIONAL ENGINEER — CHARLES C. CHEN — NO. C63209 — CIVIL — STATE OF CALIFORNIA

PROJECT ENGINEER — DATE

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN
MULTI-USE ENHANCEMENT PROJECT

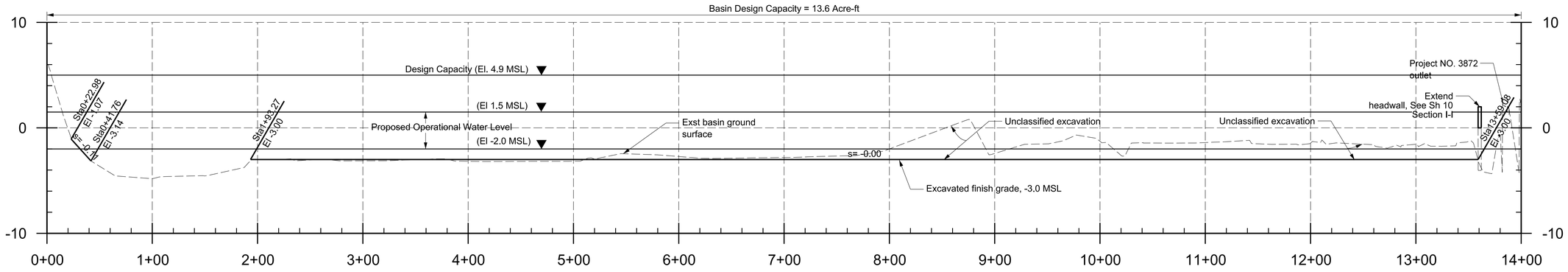
SITE GRADING PLAN

FCC0001176 | JOB JX0039 | DWG 507-D4.4 | SHEET 4 OF 13

PS-DF 07/05

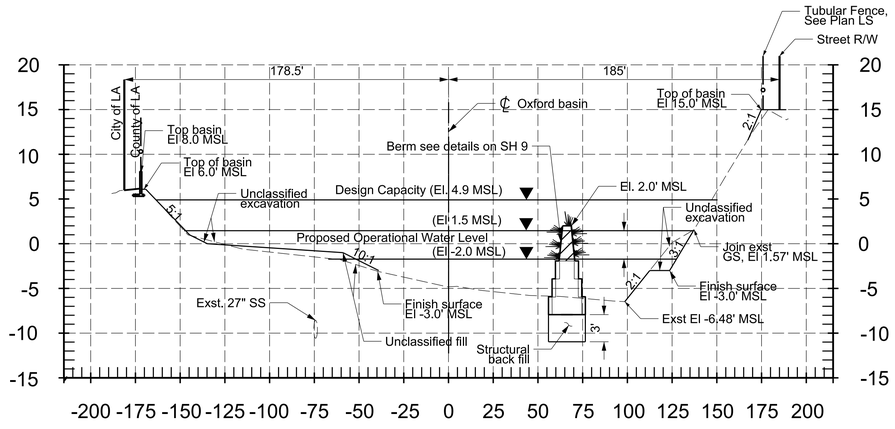
DRAFTER C. CHEN | DESIGNER C. CHEN | CHECKER J. LI | CADD PROJECT FILE NAME | REVIEWED BY | DATE

DATE $DATE$ TIME FILE $TIME$ $FILE$



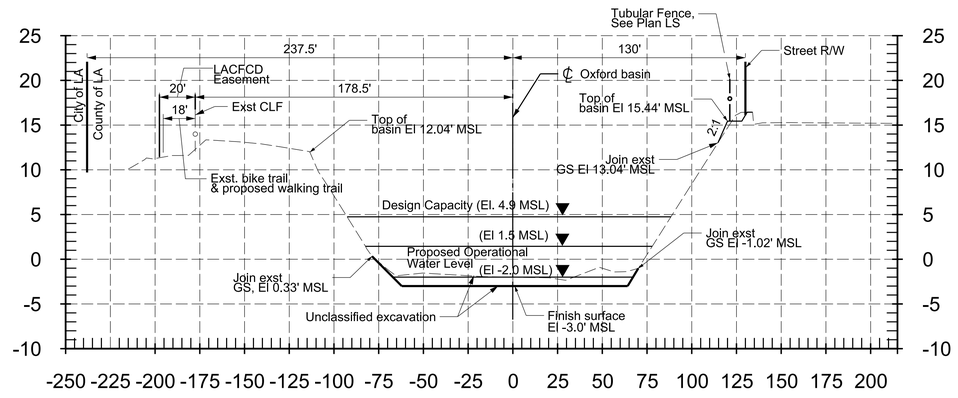
℄ OXFORD BASIN PROFILE (SH 4)

SCALE: HORZ 1"=50'
VERT 1"=5'



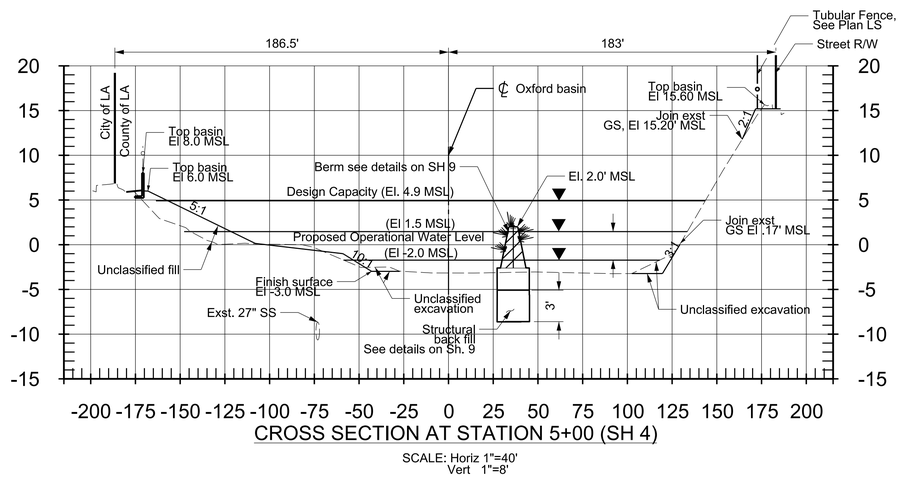
CROSS SECTION AT STATION 1+00 (SH 4)

SCALE: Horiz 1"=40'
Vert 1"=8'



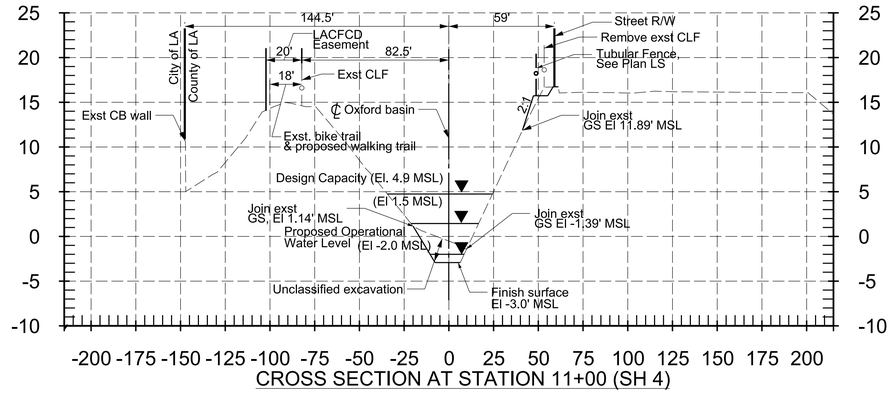
CROSS SECTION AT STATION 8+00 (SH 4)

SCALE: Horiz 1"=40'
Vert 1"=8'



CROSS SECTION AT STATION 5+00 (SH 4)

SCALE: Horiz 1"=40'
Vert 1"=8'



CROSS SECTION AT STATION 11+00 (SH 4)

SCALE: Horiz 1"=40'
Vert 1"=8'

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — CHARLES C. CHEN — NO. C63209 — CIVIL — STATE OF CALIFORNIA

PROJECT ENGINEER DATE

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN
MULTI-USE ENHANCEMENT PROJECT

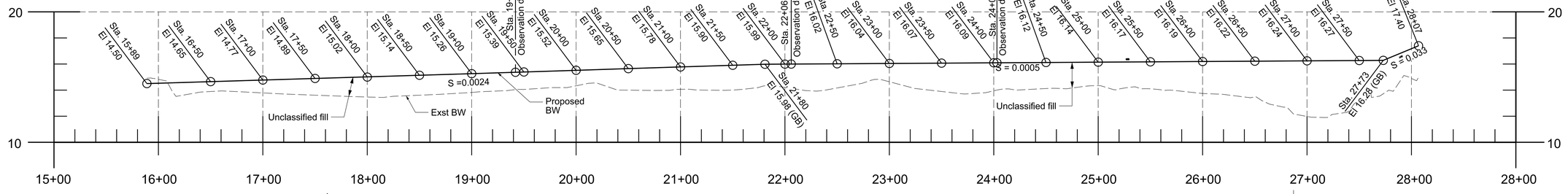
BASIN PROFILE AND CROSS SECTION DETAILS

FCC0001176	JOB JX0039	DWG 507-D4.5	SHEET 5 OF 13

PS-DF 07/05

DRAFTER C. CHEN | DESIGNER C. CHEN | CHECKER J. LI | CADD PROJECT FILE NAME | REVIEWED BY | DATE

DATE $DATE$ TIME FILE $TIME$ $FILE$



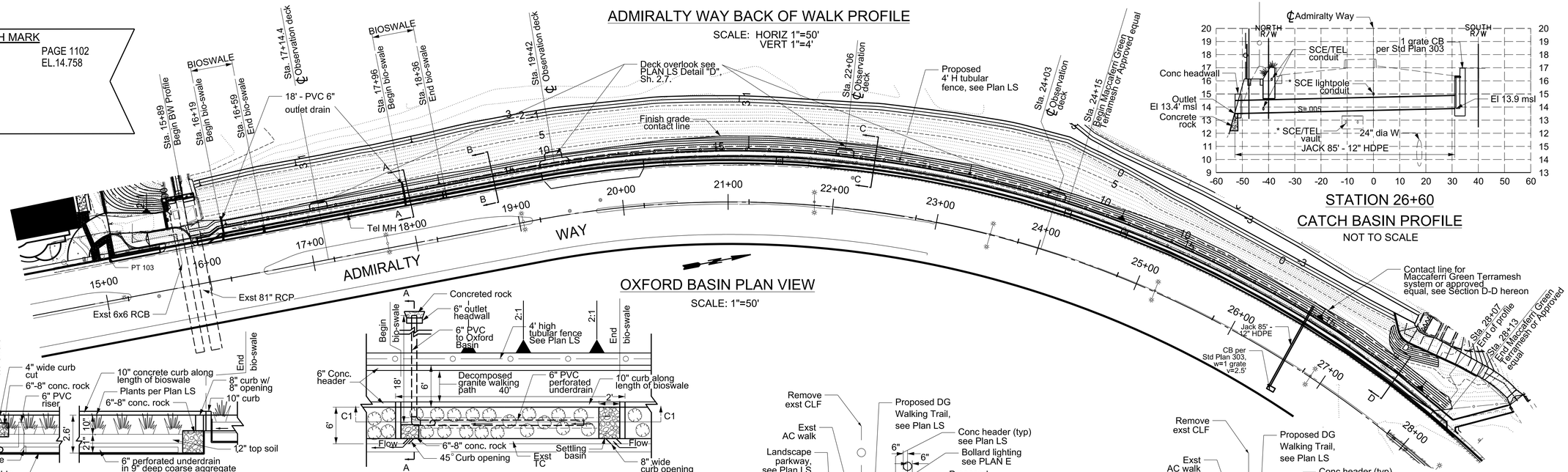
ADMIRALTY WAY BACK OF WALK PROFILE

SCALE: HORIZ 1"=50'
VERT 1"=4'

BENCH MARK

PWLB 1015 PAGE 1102
BM EL.14.758

Pt. 103
SET CHIS"+"
IN CB @ BW

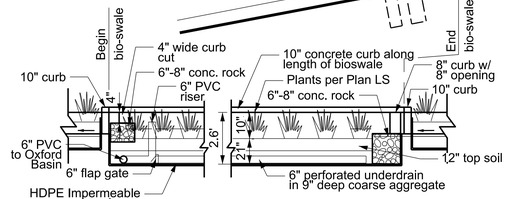


STATION 26+60 CATCH BASIN PROFILE

NOT TO SCALE

OXFORD BASIN PLAN VIEW

SCALE: 1"=50'

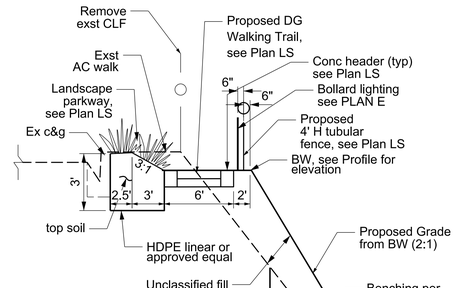


SECTION C1-C1
BIOSWALE PROFILE

NOT TO SCALE

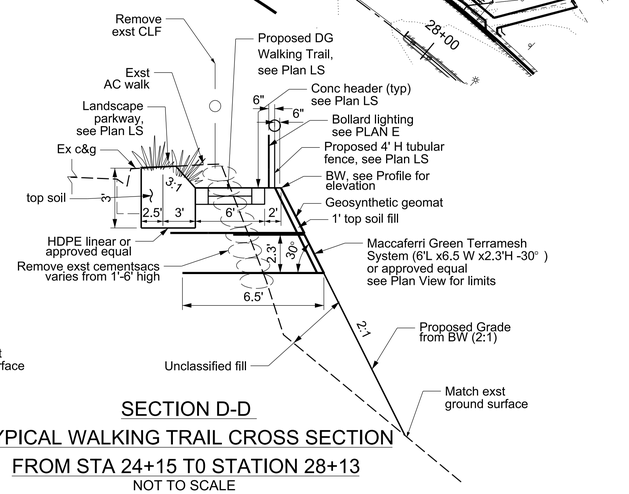
PLAN VIEW
TYPICAL BIOSWALE

NOT TO SCALE



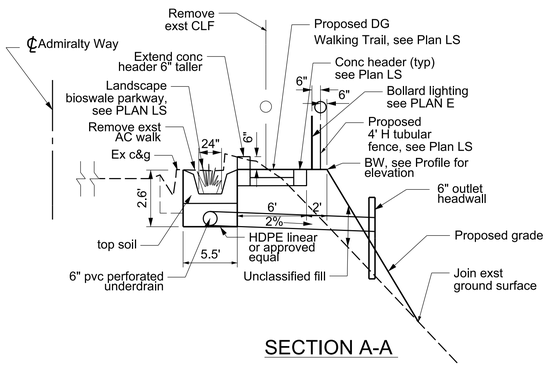
SECTION C-C
TYPICAL WALKING TRAIL CROSS SECTION
FROM STA 21+80 T0 STATION 24+15

NOT TO SCALE



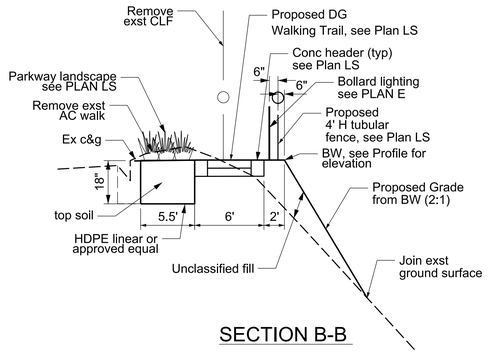
SECTION D-D
TYPICAL WALKING TRAIL CROSS SECTION
FROM STA 24+15 T0 STATION 28+13

NOT TO SCALE



SECTION A-A
TYPICAL BIOSWALE CROSS SECTION
FROM STA 16+19 TO STA 16+59 AND STA 17+96 TO 18+36

NOT TO SCALE



SECTION B-B
TYPICAL WALKING TRAIL CROSS SECTION
FROM STA 15+85 TO STA 21+80

NOT TO SCALE

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — CHARLES C. CHEN — NO. C63209 — CIVIL — STATE OF CALIFORNIA

PROJECT ENGINEER DATE

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN
MULTI-USE ENHANCEMENT PROJECT

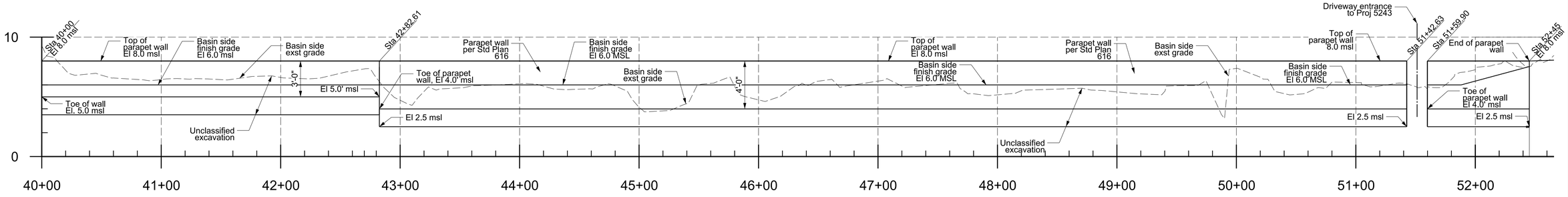
ADMIRALTY WAY
WALKING TRAIL PROFILE & DETAILS

FCC0001176	JOB JX0039	DWG 507-D4.6	SHEET 6 OF 13

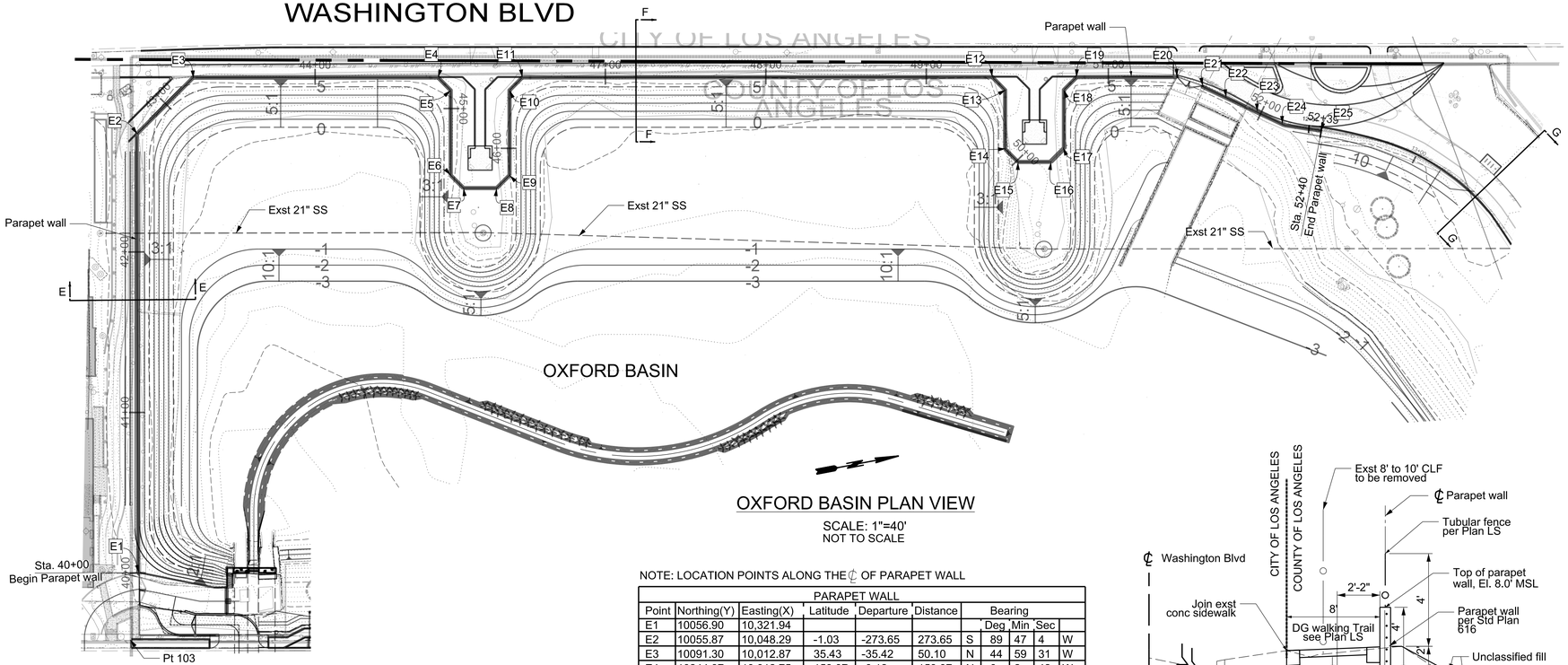
DESIGNER C. CHEN
DRAFTER C. CHEN
CHECKER J. LI
CADD PROJECT FILE NAME
REVIEWED BY
DATE

P:\S-DF 07/05

DATE. $DATE$ TIME. FILE. $TIME$ $FILE$



℄ PARAPET WALL PROFILE
SCALE: HORIZ 1"=40'
VERT 1"=4'



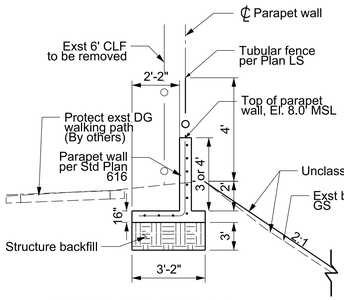
OXFORD BASIN PLAN VIEW
SCALE: 1"=40'
NOT TO SCALE

NOTE: LOCATION POINTS ALONG THE ℄ OF PARAPET WALL

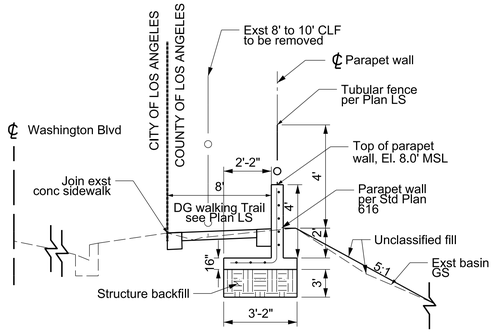
PARAPET WALL										
Point	Northing(Y)	Easting(X)	Latitude	Departure	Distance	Bearing				
							Deg	Min	Sec	
E1	10056.90	10,321.94								
E2	10055.87	10,048.29	-1.03	-273.65	273.65	S	89	47	4	W
E3	10091.30	10,012.87	35.43	-35.42	50.10	N	44	59	31	W
E4	10244.37	10,012.75	153.07	-0.12	153.07	N	0	2	42	W
E5	10252.54	10,021.04	8.17	8.29	11.64	N	45	25	4	E
E6	10252.56	10,073.95	0.02	52.91	52.91	N	89	58	42	E
E7	10260.27	10,081.65	7.71	7.70	10.90	N	44	57	46	E
E8	10280.52	10,081.64	20.25	-0.01	20.25	N	0	1	42	W
E9	10288.22	10,073.93	7.70	-7.71	10.90	N	45	2	14	W
E10	10288.21	10,021.01	-0.01	-52.92	52.92	S	89	59	21	W
E11	10296.50	10,012.71	8.29	-8.30	11.73	N	45	2	4	W
E12	10589.77	10,012.49	293.27	-0.22	293.27	N	0	2	35	W
E13	10598.06	10,020.90	8.29	8.41	11.81	N	45	24	42	E
E14	10598.07	10,057.64	0.01	36.74	36.74	N	89	59	4	E
E15	10605.78	10,065.34	7.72	44.44	45.11	N	80	8	42	E
E16	10625.33	10,065.33	19.55	-0.01	19.55	N	0	1	46	W
E17	10633.74	10,056.92	353.22	-24.72	354.08	N	4	0	12	W
E18	10633.73	10,020.74	345.51	-53.19	349.58	N	8	45	6	W
E19	10642.02	10,012.45	353.81	-8.56	353.91	N	1	23	9	W
E20	10705.12	10,012.39	408.62	-0.32	408.62	N	0	2	42	W
E21	10720.66	10,018.44	432.45	-2.57	432.46	N	0	20	26	W
E22	10735.78	10,025.57	439.28	12.86	439.47	N	1	40	37	E
E23	10754.69	10,034.48	466.48	13.47	466.67	N	1	39	14	E
E24	10771.63	10,042.47	475.13	29.76	476.06	N	3	35	3	E
E25	10794.61	10,045.85	204.84	33.36	207.54	N	9	14	60	E

BENCH MARK
PWLB 1015 PAGE 1102
BM EL.14.758

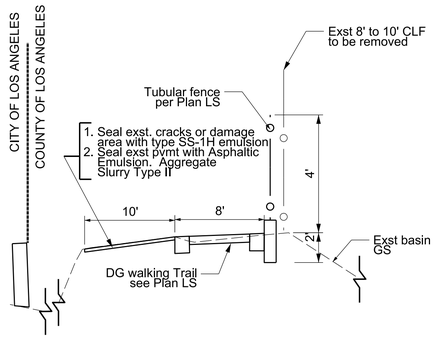
Pt. 103
SET CHIS"+"
IN CB @ BW



SECTION E-E (SH 4)
TYPICAL WALKING TRAIL CROSS SECTION
STA 40+00 TO 42+73
NOT TO SCALE



SECTION F-F (SH 4)
TYPICAL WALKING TRAIL CROSS SECTION
STA 42+73 TO STA 52+45
NOT TO SCALE



SECTION G-G (SH 4)
TYPICAL BIKE PATH/WALKING TRAIL CROSS SECTION
NOT TO SCALE

DATE	MK	DESCRIPTION
REVISIONS		

REGISTERED PROFES
CHARLES C. CHEN
NO. C63209
CIVIL
STATE OF CALIFORNIA
PROJECT ENGINEER DATE

OXFORD RETENTION BASIN
MULTI-USE ENHANCEMENT PROJECT

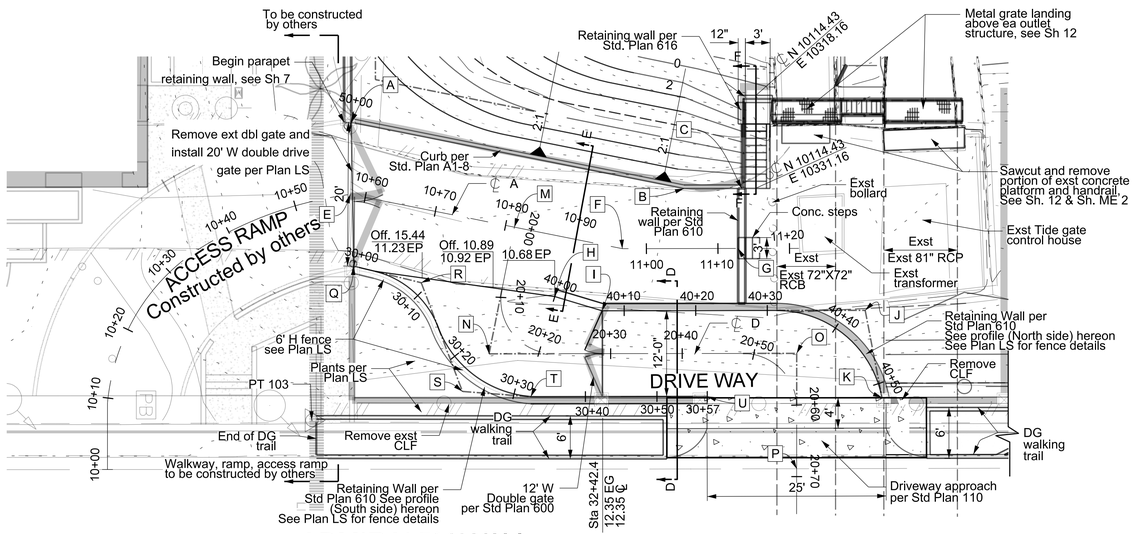
BERM AND PARAPET WALL PLAN & DETAILS

FCC0001176 | JOB JX0039 | DWG 507-D4.7 | SHEET 7 OF 13

PS-OF 07/05

DRAFTER C. CHEN | DESIGNER C. CHEN | CHECKER J. LI | CADD PROJECT FILE NAME | REVIEWED BY | DATE

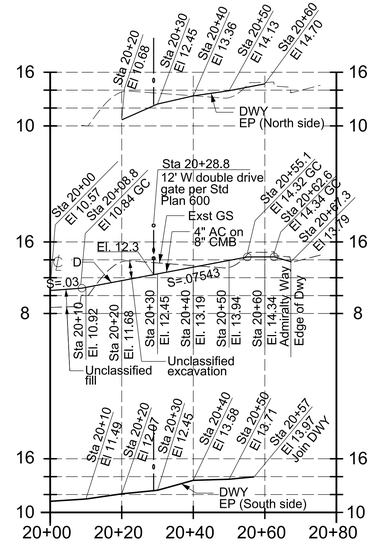
DATE. $DATE$ TIME. FILE. $TIME$ $FILE$



ADMIRALTY WAY

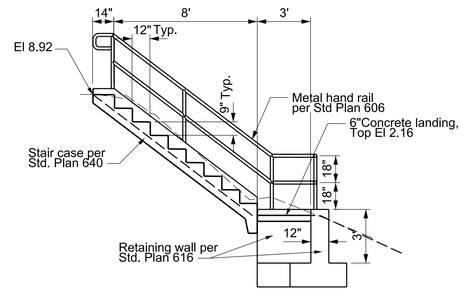
PLAN A - ACCESS RAMP AND DRIVEWAY PLAN VIEW

SCALE: 1"=10'



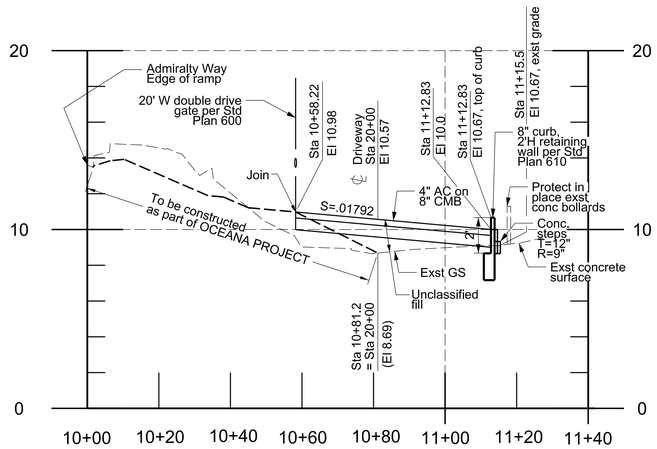
PROFILE FOR ℄ D , DRIVEWAY

SCALE: HORIZ 1"=20'
VERT 1"=8'



SECTION F-F ℄ PROPOSED STAIRWAY

SCALE: HORIZ 1"=4'
VERT 1"=4'



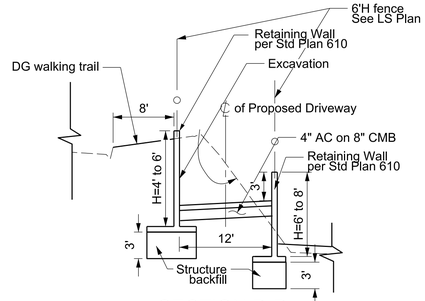
PROFILE FOR ℄ A, ACCESS RAMP

SCALE: HORIZ 1"=20'
VERT 1"=4'

BENCH MARK

PWLB 1015
BM
Pt. 103
SET CHIS"+"
IN CB @ BW

PAGE 1102
El: 14.758

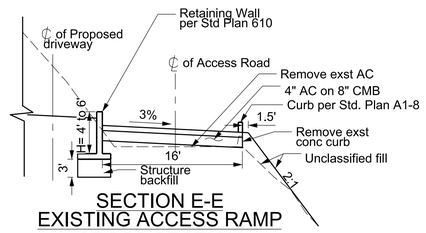


SECTION D-D PROPOSED DRIVEWAY CROSS SECTION

NOT TO SCALE

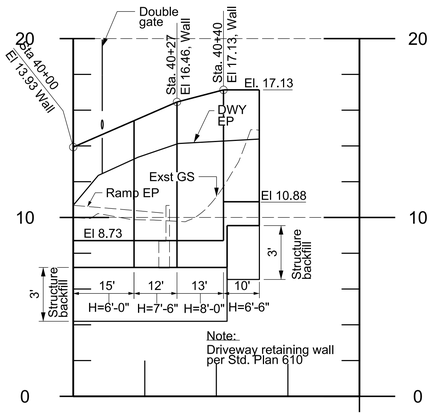
Curve Data						
PI	△	R	T	BC Sta.	EC Sta.	L
J	79°11'46"	15'	12.41'	40+31.26	40+51.99	20.73
N	101°22'13"	7.5'	9.16'	20+08.90	20+22.17	13.27
O	90°00'00"	7.5'	7.51'	20+48.49	20+60.28	11.80
R	55°28'11"	12.68'	6.67'	30+03.02	30+15.29	12.39
S	69°15'02"	15.09'	10.42'	30+15.29	30+33.53	18.24

Curb										
Point	Northing(Y)	Easting(X)	Latitude	Departure	Distance	Bearing				
							Deg	Min	Sec	
A	10057.88	10,321.91								
B	10104.38	10,331.19	46.50	9.28	47.42	N	11	17	10	E
C	10108.84	10,331.90	4.46	0.71	4.52	N	9	2	43	E
Access Ramp										
Point	Northing(Y)	Easting(X)	Latitude	Departure	Distance	Bearing				
							Deg	Min	Sec	
E	10057.73	10,332.00								
F	10095.76	10,339.59	38.03	7.59	38.78	N	11	17	12	E
G	10111.95	10,339.56	16.19	-0.03	16.19	N	0	6	22	W
North Retaining wall										
Point	Northing(Y)	Easting(X)	Latitude	Departure	Distance	Bearing				
							Deg	Min	Sec	
H	10086.32	10,346.28								
I	10092.93	10,348.26	6.61	1.98	6.90	N	16	40	31	E
J	10129.70	10,348.21	36.77	-0.05	36.77	N	0	5	2	W
K	10132.04	10,360.39	2.34	12.18	12.41	N	79	6	27	E
Drive Way										
Point	Northing(Y)	Easting(X)	Latitude	Departure	Distance	Bearing				
							Deg	Min	Sec	
M	10080.68	10,336.58								
N	10077.14	10,354.29	-3.54	17.71	18.06	S	78	42	18	E
O	10120.14	10,354.23	42.99	-0.05	42.99	N	0	4	23	W
P	10120.13	10,370.35	-0.01	16.12	16.12	S	89	58	51	E
South Retaining Wall										
Point	Northing(Y)	Easting(X)	Latitude	Departure	Distance	Bearing				
							Deg	Min	Sec	
Q	10058.23	10,342.03								
R	10067.67	10,344.35	9.44	2.32	9.72	N	13	50	16	E
S	10073.42	10,359.55	5.76	15.19	16.25	N	69	14	48	E
T	10082.99	10,360.28	9.56	0.73	9.59	N	4	22	46	E
U	10107.63	10,360.24	24.65	-0.04	24.65	N	0	5	19	W



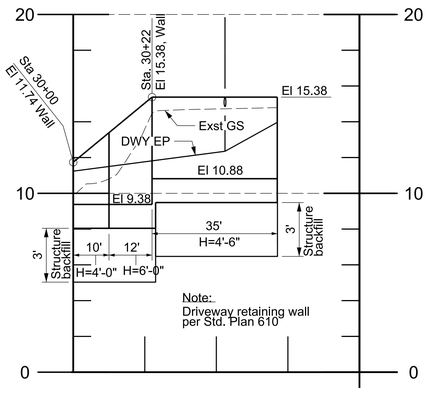
SECTION E-E EXISTING ACCESS RAMP CROSS SECTION

NOT TO SCALE



PROFILE FOR DRIVEWAY RETAINING WALL (NORTH SIDE)

SCALE: HORIZ 1"=20'
VERT 1"=4'



PROFILE FOR DRIVEWAY RETAINING WALL (SOUTH SIDE)

SCALE: HORIZ 1"=20'
VERT 1"=4'

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — CHARLES C. CHEN — NO. C63209 — CIVIL — STATE OF CALIFORNIA

PROJECT ENGINEER DATE

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN
MULTI-USE PROJECT

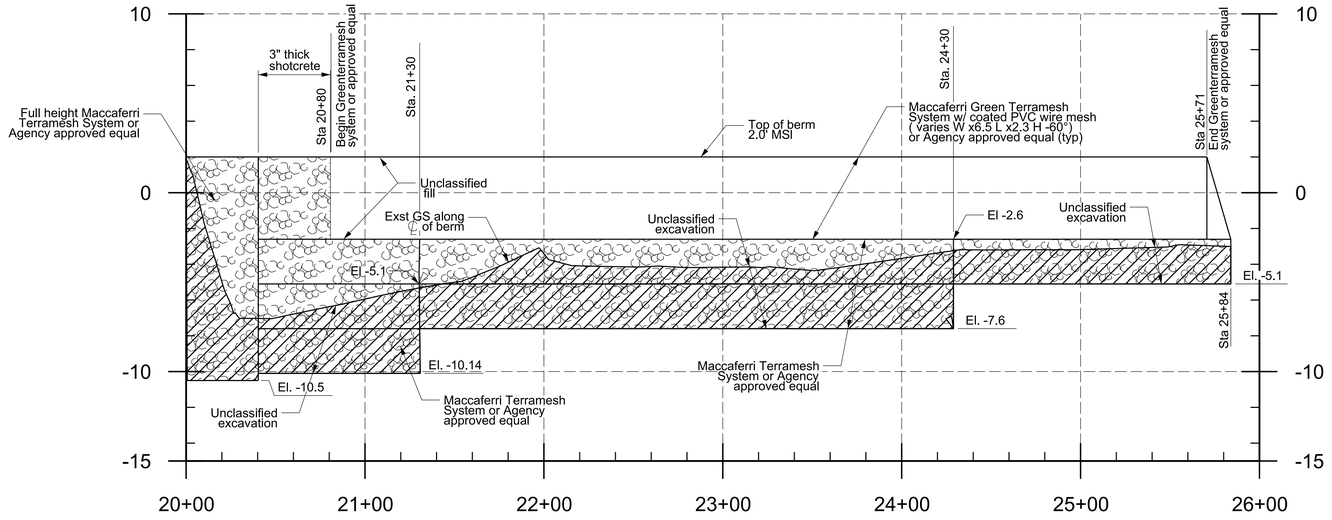
TIDE GATE ACCESS RAMP
PROFILE AND DETAILS

FCC0001176	JOB JX0039	DWG 507-D4.8	SHEET 8 OF 13

DESIGNER C. CHEN
DRAFTER C. CHEN
CHECKER J. LI
CADD PROJECT FILE NAME
REVIEWED BY
DATE

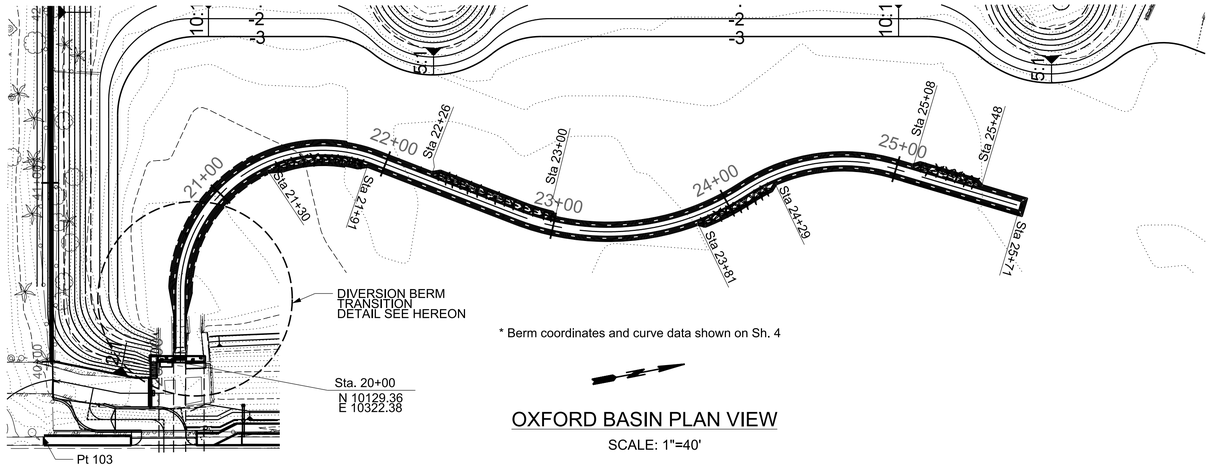
DATE. $DATE$ TIME. FILE. $TIME$ $FILE$

RAMP



BERM ℄ PROFILE

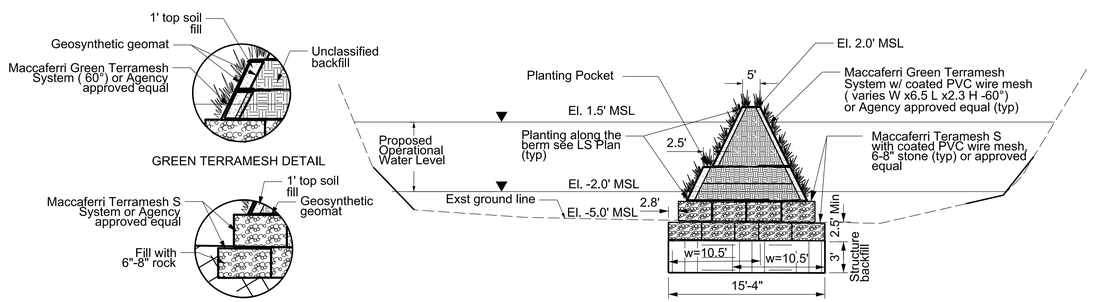
SCALE: Horz: 1"=40'
Vert: 1"=4'



* Berm coordinates and curve data shown on Sh. 4

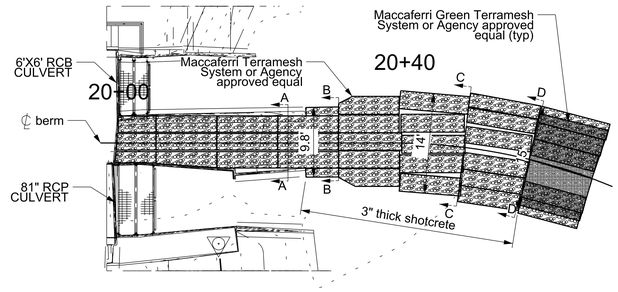
OXFORD BASIN PLAN VIEW

SCALE: 1"=40'



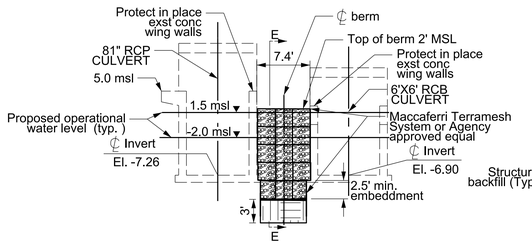
TYPICAL SECTION
BASIN DIVERSION BERM WITH PLANTER

NOT TO SCALE



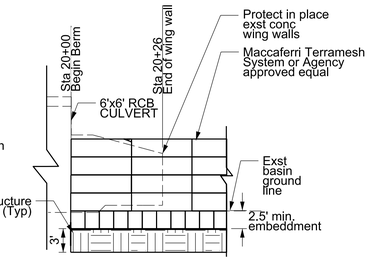
PLAN VIEW
DIVERSION BERM TRANSITION DETAIL

NOT TO SCALE



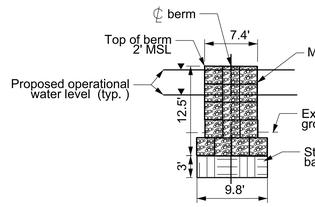
SECTION A-A
STA 20+22

NOT TO SCALE



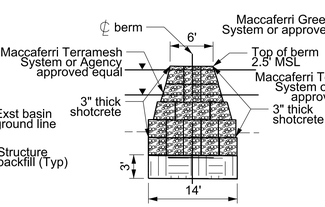
SECTION E-E
BERM PROFILE AT TIDE GATE

NOT TO SCALE



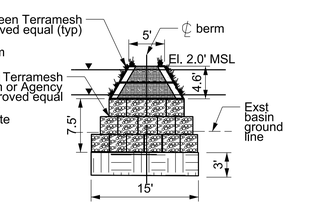
SECTION B-B
Sta 20+30

NOT TO SCALE



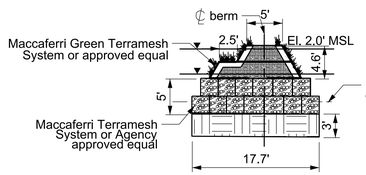
SECTION C-C
Sta 20+40

NOT TO SCALE



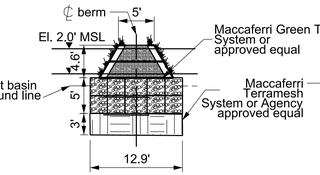
SECTION D-D
Sta 20+80

NOT TO SCALE



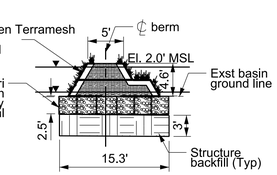
SECTION
STA 21+40

NOT TO SCALE



SECTION
STA 23+50

NOT TO SCALE



SECTION
STA 25+20

NOT TO SCALE

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — CHARLES C. CHEN — NO. C63209 — CIVIL — STATE OF CALIFORNIA

PROJECT ENGINEER — DATE

OXFORD RETENTION BASIN
MULTI-USE ENHANCEMENT PROJECT

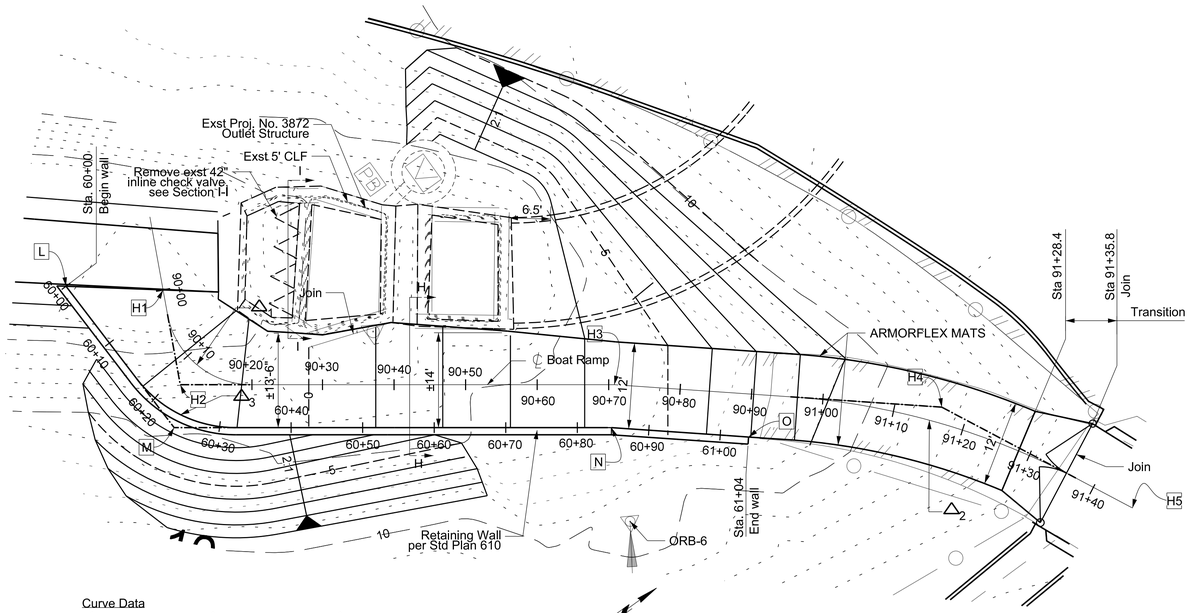
BASIN BERM PLAN, PROFLE & DETAILS

FCC0001176	JOB JX0039	DWG 507-D4.9	SHEET 9 OF 13

DRAFTER C. CHEN
DESIGNER C. CHEN
CHECKER J. LI
CADD PROJECT FILE NAME
REVIEWED BY
DATE

PS-DF 07/05

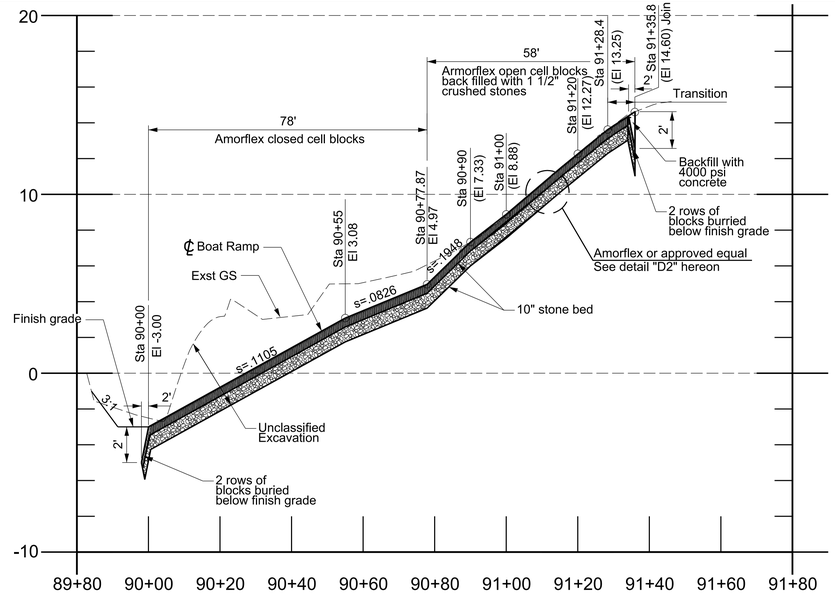
DATE, $DATE$ TIME, FILE, $TIME$ $FILE$



Curve Data

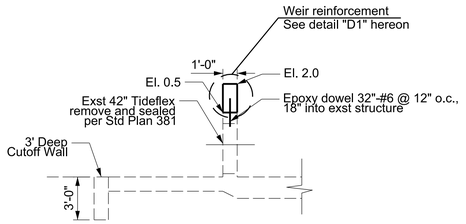
Δ_1 = 79°43'52"	Δ_2 = 23°56'28"	Δ_3 = 52°35'57"
R = 12.0'	R = 100'	R = 17.5'
T = 10.02'	T = 21.20'	T = 8.65'
L = 16.70'	L = 41.78'	L = 16.07'
BC = 90+03.44	BC = 90+95.45	BC = 60+16.23
EC = 90+20.14	EC = 91+337.23	EC = 60+32.29
PI = N 11,252.73 E 10,666.02	PI = N 11337.39 E 10730.57	PI = N 11248.53 E 10670.39

PLAN B BOAT RAMP
PLAN VIEW
SCALE: 1"=10'

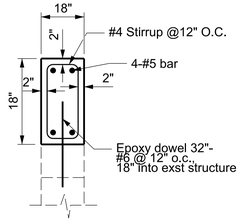


PROFILE FOR
PROPOSED BOAT RAMP
SCALE: HORIZ 1"=20'
VERT 1"=4'

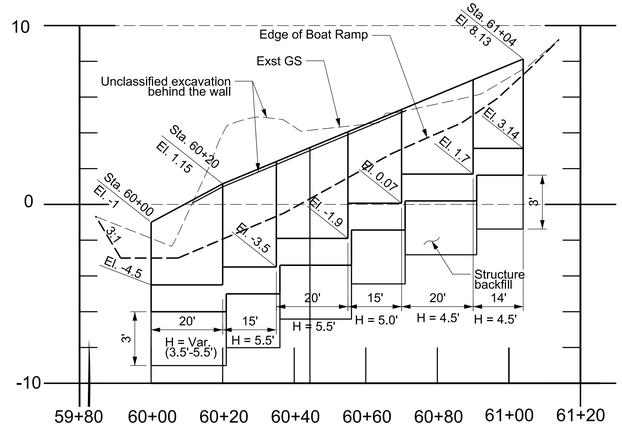
Boat Ramp										
Point	Northing(Y)	Easting(X)	Latitude	Departure	Distance	Bearing				
							Deg	Min	Sec	
H1	11258.49	10,653.85								
H2	11252.73	10,666.02	-5.77	12.16	13.46	S	64	38	15	E
H3	11302.03	10,701.36	49.30	35.34	60.66	N	35	37	55	E
H4	11337.40	10730.57	35.36	29.21	45.87	N	39	33	22	E
H5	11337.39	10730.56	13.45	26.98	30.15	N	63	29	50	E
South Wall										
Point	Northing(Y)	Easting(X)	Latitude	Departure	Distance	Bearing				
							Deg	Min	Sec	
L	11248.27	10,661.75								
M	11248.53	10,670.39	0.27	8.64	8.65	N	88	13	51	E
N	11297.79	10,705.70	49.26	35.31	60.61	N	35	37	54	E
O	11313.02	10,718.23	15.23	12.52	19.72	N	39	26	21	E



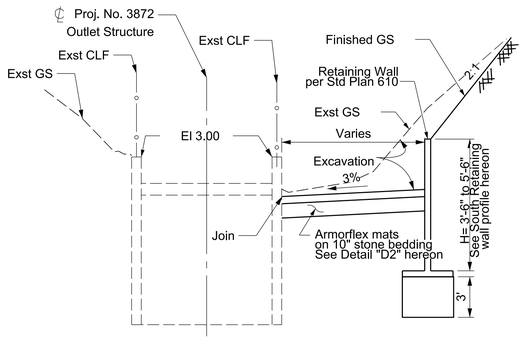
SECTION J-J
WEIR WALL EXTENTION
CROSS SECTION
NOT TO SCALE



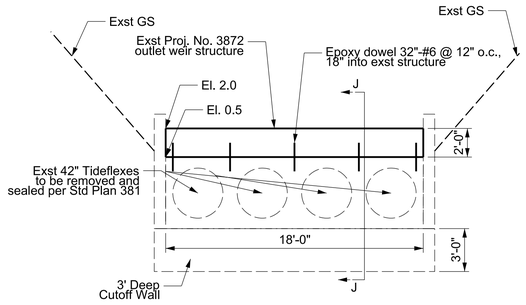
DETAIL "D1"
WEIR REINFORCEMENT
NOT TO SCALE



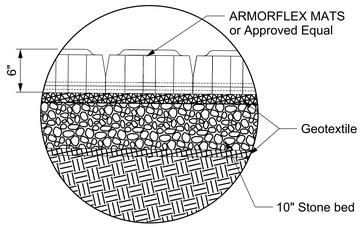
PROFILE FOR
SOUTH RETAINING WALL
SCALE: HORIZ 1"=20'
VERT 1"=4'



SECTION H-H
PROPOSED BOAT RAMP
CROSS SECTION
NOT TO SCALE



SECTION I-I
PROPOSED WEIR WALL EXTENSION
CROSS SECTION
NOT TO SCALE



DETAIL "D2"
AMORFLEX
NOT TO SCALE

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER
CHARLES C. CHEN
NO. C63209
CIVIL
STATE OF CALIFORNIA

PROJECT ENGINEER — DATE

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN
MULTIUSE PROJECT

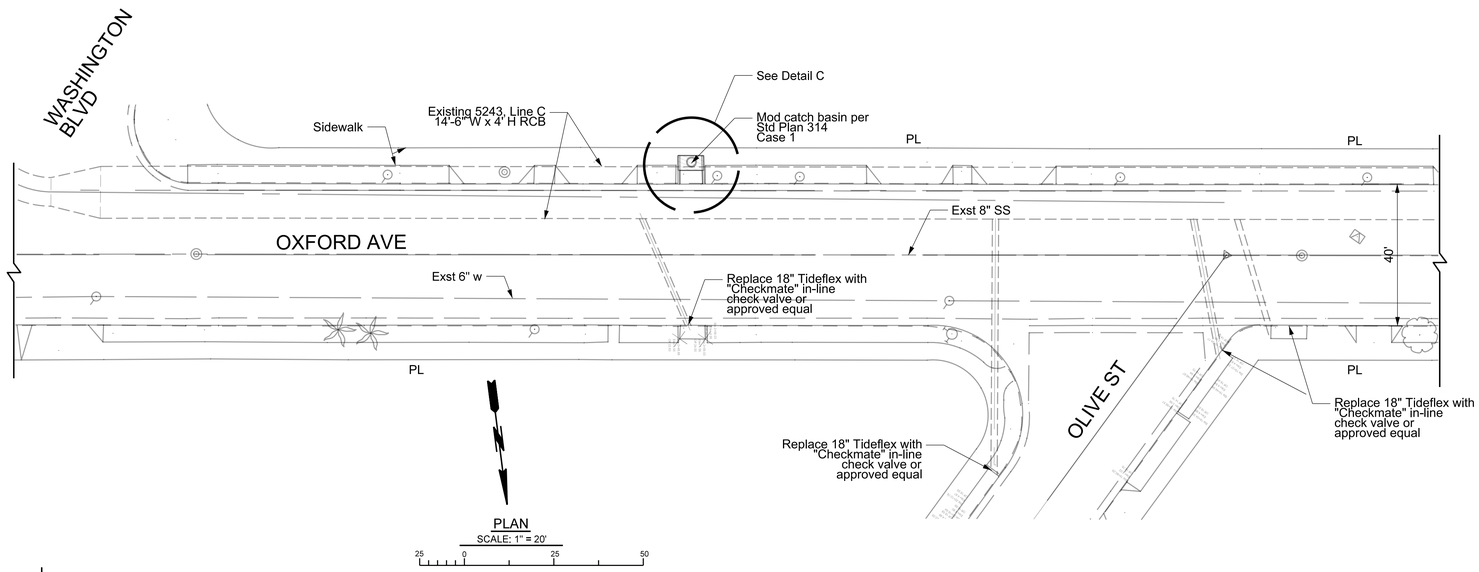
BOAT RAMP PLAN AND DETAIL
AT PROJECT NO. 3872

FCC0001176	JOB JX0039	DWG 507-D4.10	SHEET 10 OF 13

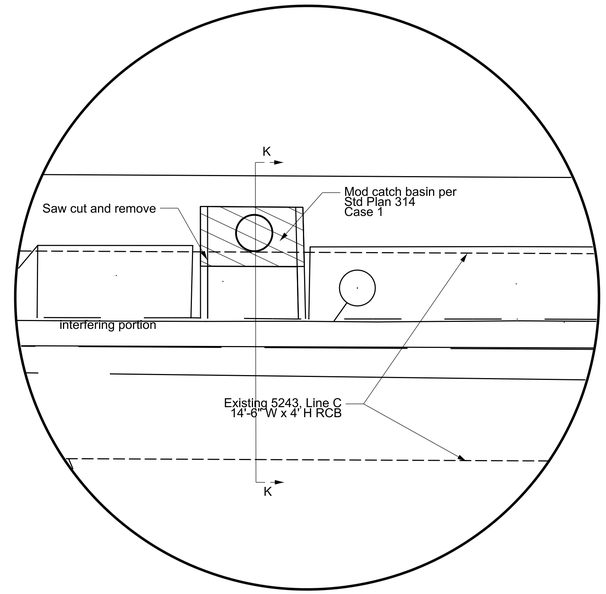
PS-DF 07/05

DRAFTER C. CHEN
DESIGNER C. CHEN
CHECKER J. LI
CADD PROJECT FILE NAME
REVIEWED BY
DATE

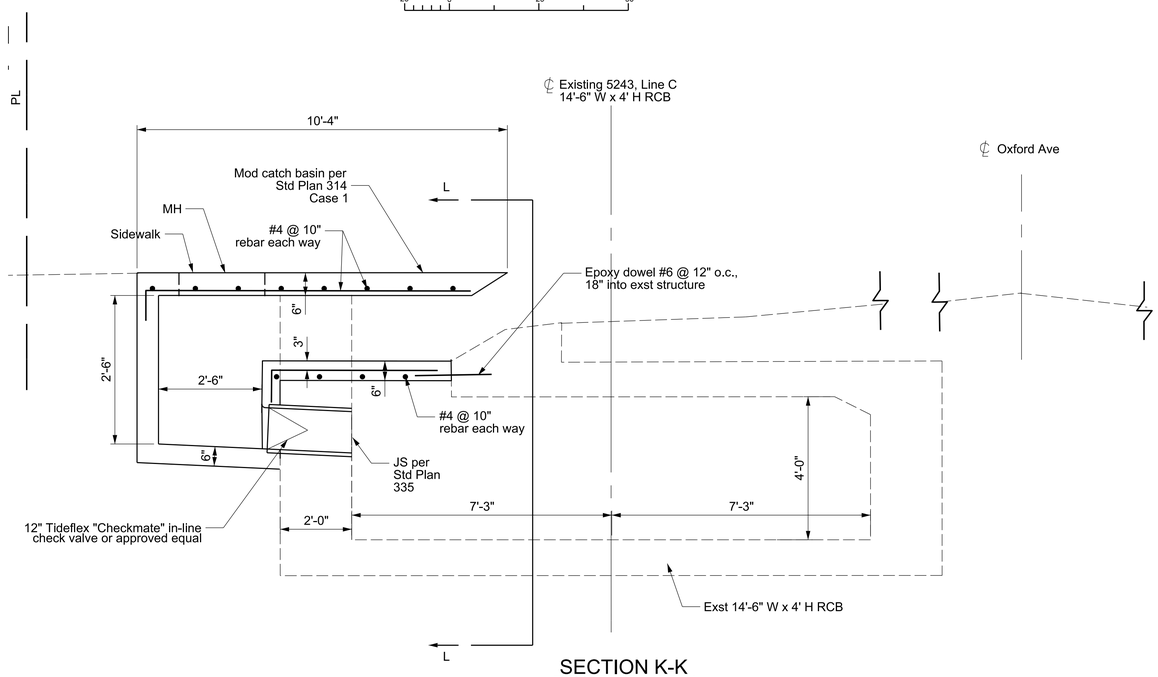
DATE. $DATE$ TIME. FILE. $TIME$ $FILE$



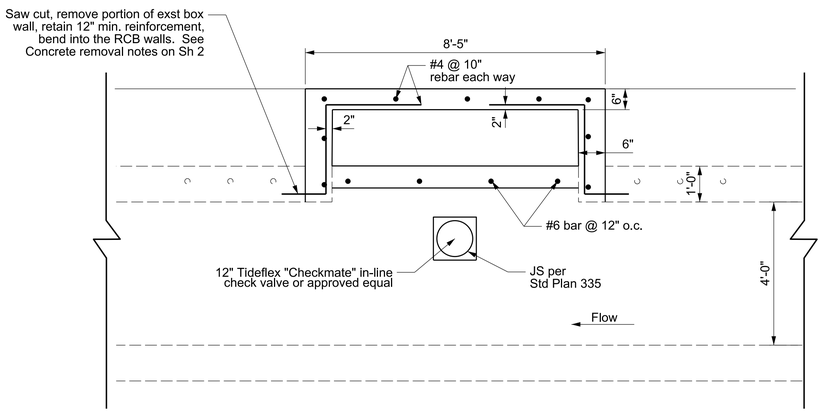
PLAN
SCALE: 1" = 20'
25 0 25 50



DETAIL C
PLAN VIEW
NOT TO SCALE



SECTION K-K
PROFILE VIEW
NOT TO SCALE



SECTION L-L
SECTION VIEW
NOT TO SCALE

DRAFTER	DESIGNER	CHECKER	CADD PROJECT FILE NAME	REVIEWED BY	DATE
C. CHEN	C. CHEN	J. LI			

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER
CHARLES C. CHEN
NO. C63209
CIVIL
STATE OF CALIFORNIA

PROJECT ENGINEER DATE

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

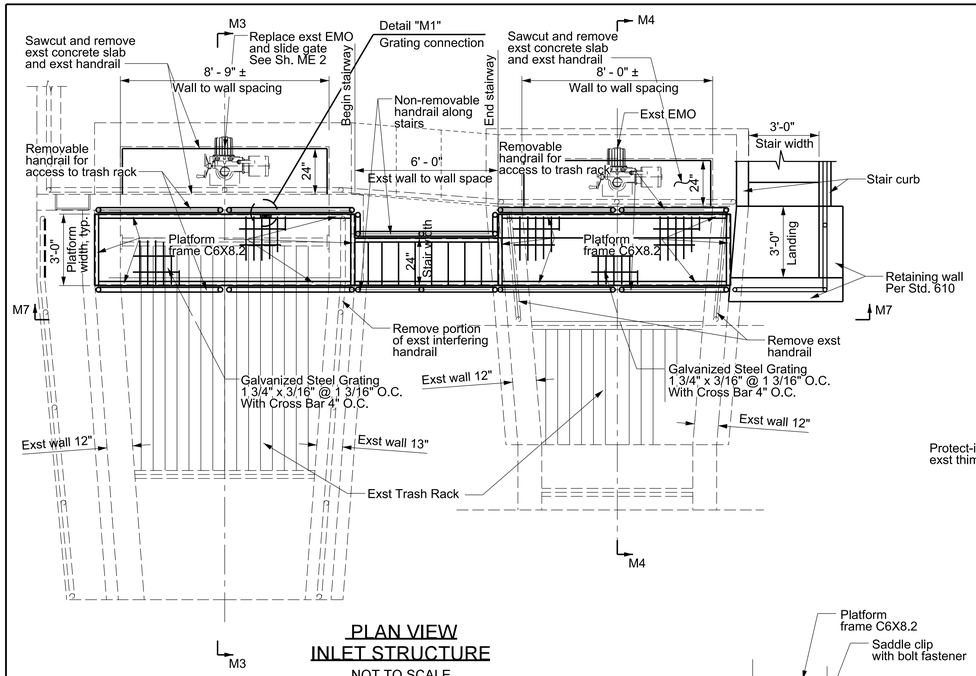
OXFORD RETENTION BASIN
MULTI-USE ENHANCEMENT PROJECT

OXFORD AVE
CATCH BASIN MODIFICATION AND DETAILS

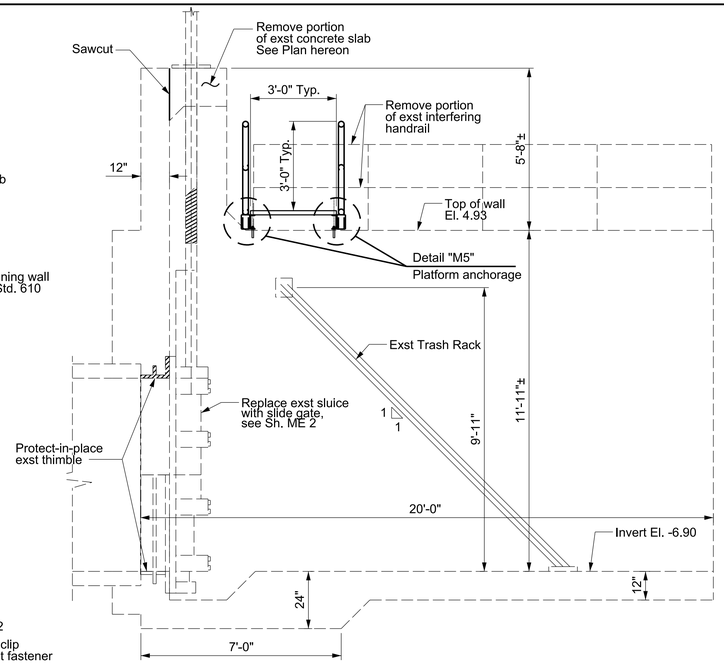
FCC0011786	JOB JX0039	DWG 507-D4.11	SHEET 11 OF 13

PS-DF 07/05

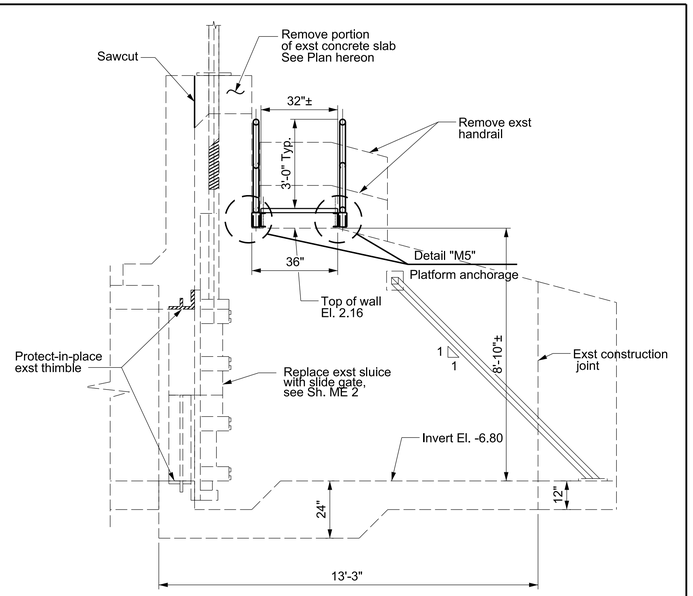
DATE: $DATE$ TIME: FILE: $TIME$ $FILE$



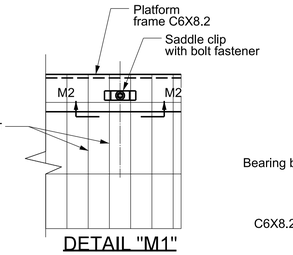
PLAN VIEW INLET STRUCTURE
NOT TO SCALE



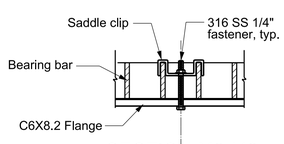
SECTION M3-M3
NOT TO SCALE



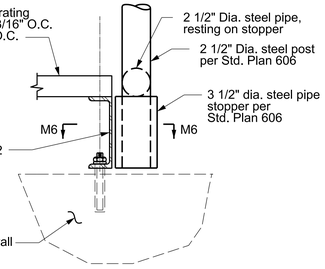
SECTION M4-M4
NOT TO SCALE



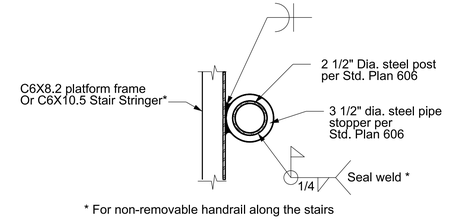
DETAIL "M1" GRATING CONNECTION
NOT TO SCALE



SECTION M2-M2
NOT TO SCALE

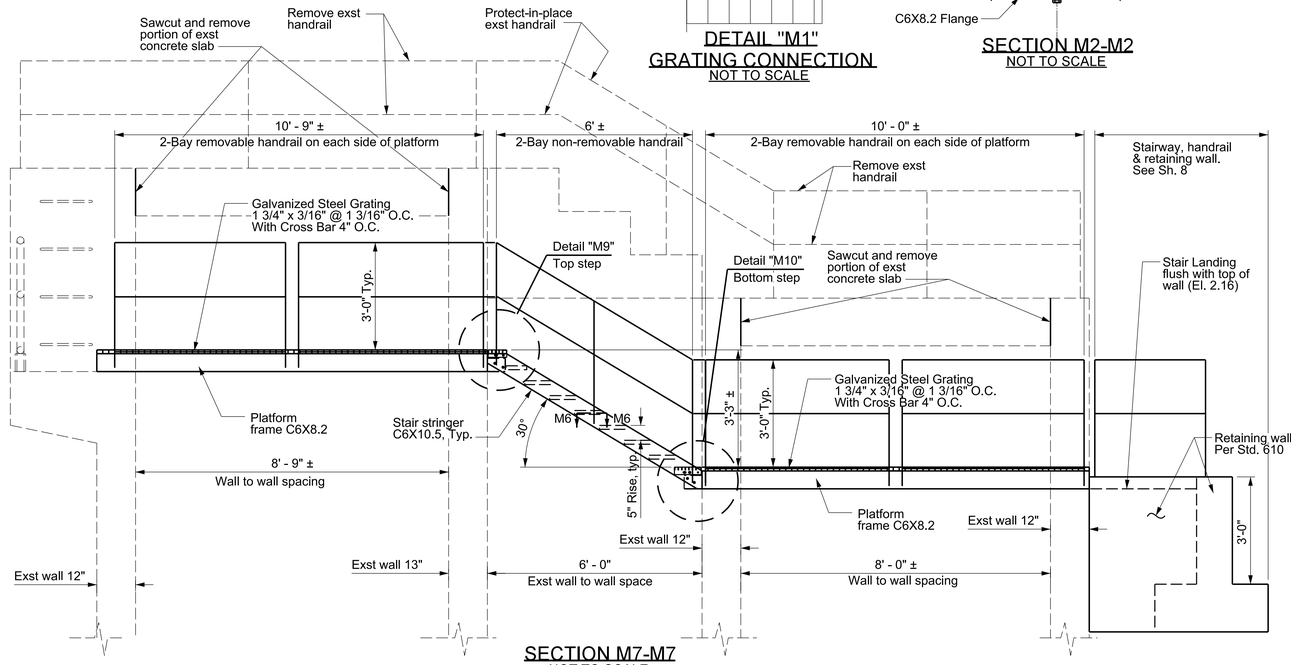


DETAIL "M5"
NOT TO SCALE



* For non-removable handrail along the stairs

SECTION M6-M6
NOT TO SCALE



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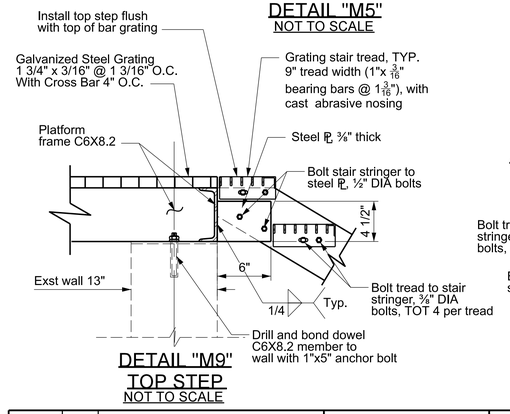
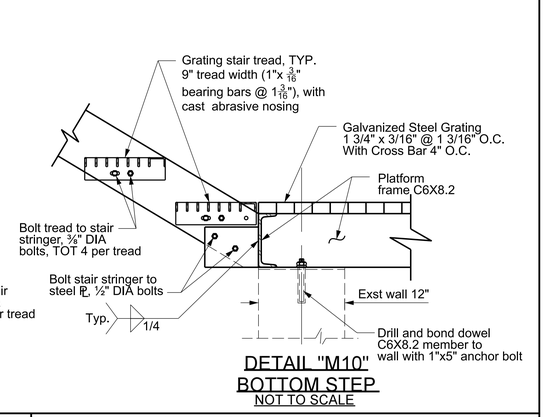


DETAIL "M9" TOP STEP
NOT TO SCALE



DETAIL "M10" BOTTOM STEP
NOT TO SCALE

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER
CHARLES C. CHEN
NO. C63209
CIVIL
STATE OF CALIFORNIA

PROJECT ENGINEER DATE

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN
MULTIUSE PROJECT

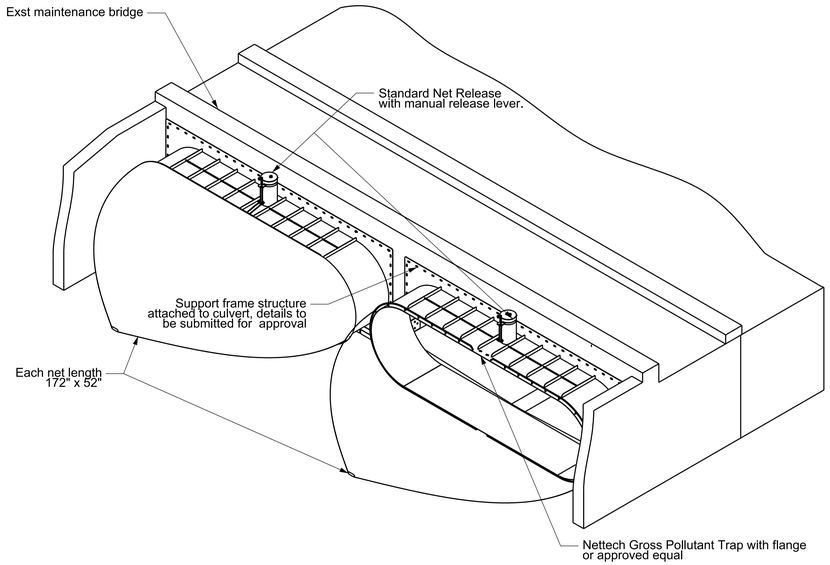
STRUCTURAL CATWALK DETAIL
FOR TIDE GATE CONTROL HOUSE

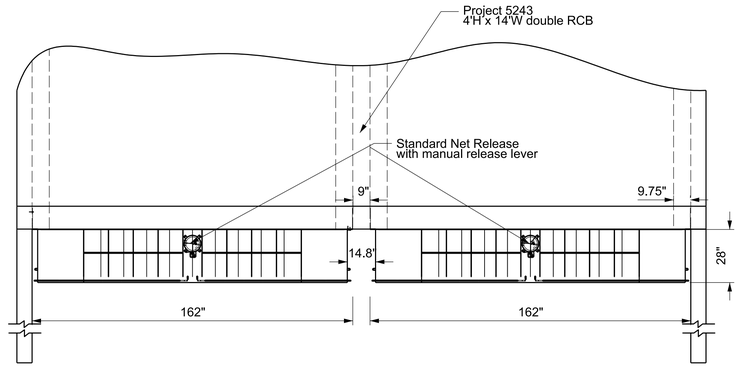
FCC0001176	JOB JX0039	DWG 507-D4.12	SHEET 12 OF 13

DRAFTER C. CHEN
DESIGNER C. CHEN
CHECKER J. LI
CADD PROJECT FILE NAME
REVIEWED BY
DATE

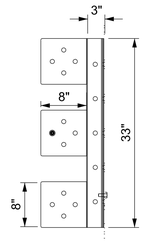
PS-DF 07/05

DATE, $DATE$ TIME, FILE, $TIME$ $FILE$

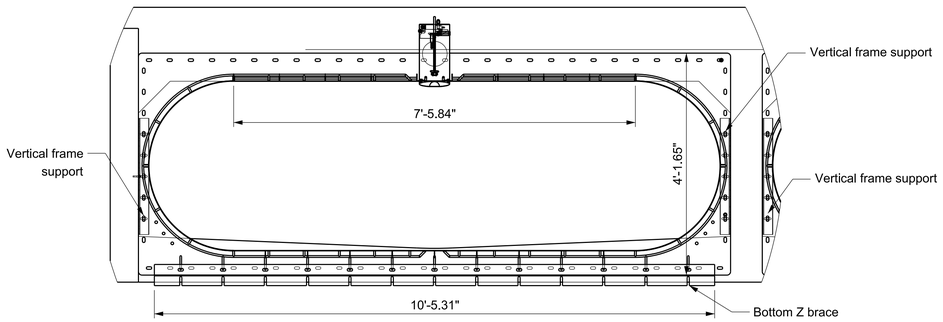




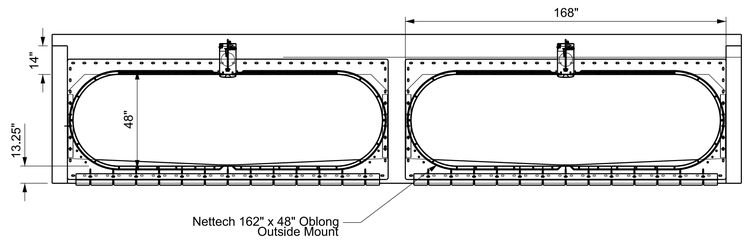
TOP VIEW
NOT TO SCALE



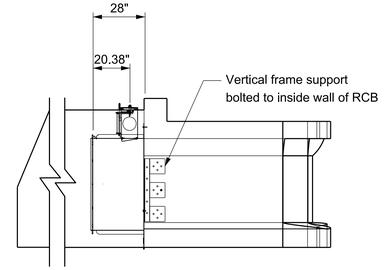
VERTICAL SUPPORT FRAME
NOT TO SCALE



TRASH EXCLUDER DEVICE
NOT TO SCALE



FRONT VIEW
NOT TO SCALE



SECTION A-A
NOT TO SCALE

Note: Drawing is a representation of the Nettech Gross Pollutant Trap with flange. Actual dimensions, gauge of steel, etc. are per manufacturer of trash excluder. Manuf. cut sheets shall be submitted for review before fabrication. All material shall be 304 stainless steel. Actual dimensions shall be verified by the field engineers.

DRAFTER V. TE
DESIGNER C. CHEN
CHECKER J. LI
CADD PROJECT FILE NAME
REVIEWED BY
DATE

DATE	MK	DESCRIPTION
		REVISIONS

REGISTERED PROFESSIONAL ENGINEER
CHARLES C. CHEN
NO. C63209
CIVIL
STATE OF CALIFORNIA

PROJECT ENGINEER DATE

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN
MULTI-USE ENHANCEMENT PROJECT

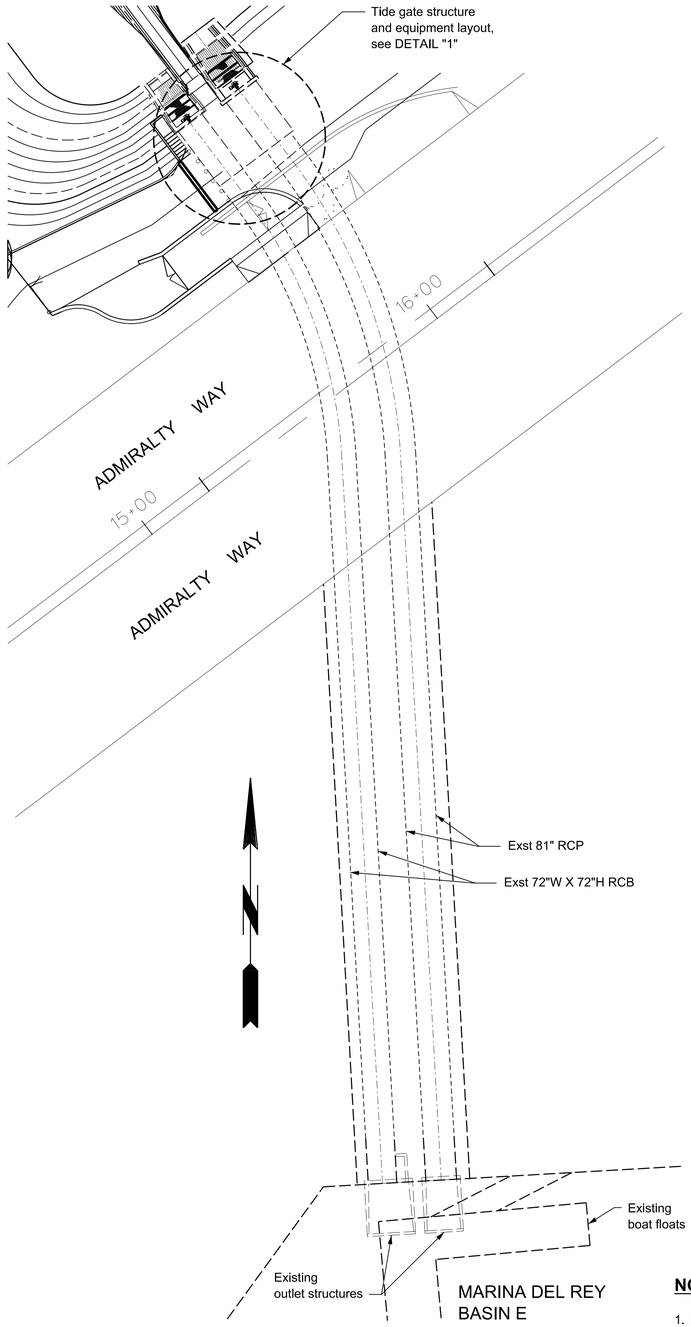
TRASH EXCLUDER DEVICE

FCC0011786	JOB JX0039	DWG 507-D413	SHEET 13 OF 13

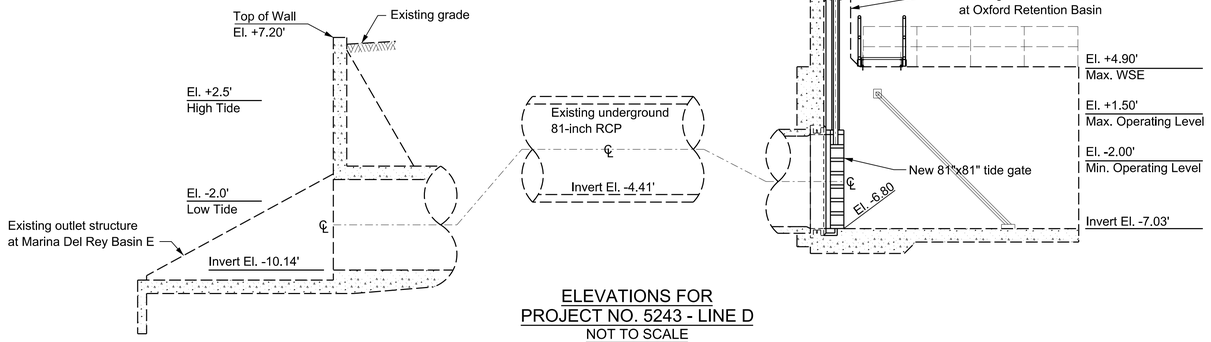
PS-DF 07/05

DATE. $DATE$ TIME. FILE. $TIME$ $FILE$

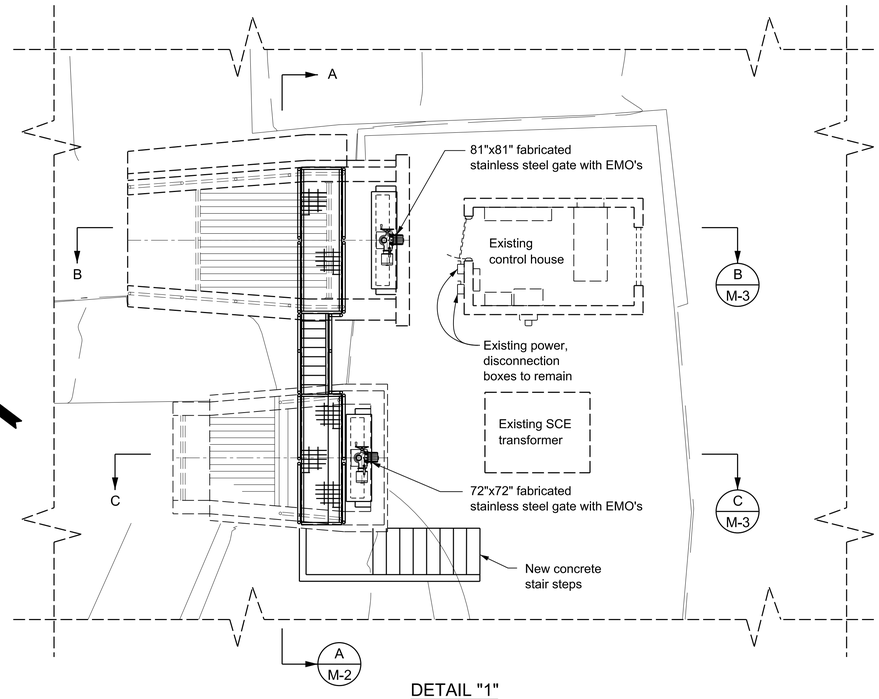
OXFORD RETENTION BASIN



MECHANICAL SITE PLAN
SCALE: 1" = 20'-0"



ELEVATIONS FOR
PROJECT NO. 5243 - LINE D
NOT TO SCALE



DETAIL "1"
MECHANICAL EQUIPMENT LAYOUT
SCALE: 1/8" = 1'-0"

NOTES:

1. Elevations shown hereon are based on Mean Sea Level (MSL). To convert to Mean Low Low Water Elevation (MLLW): 0' (MSL) = +2.7' (MLLW)
2. The Contractor shall verify the existing dimensions that marked with " * ".

DATE	MK	DESCRIPTION
		REVISIONS

REGISTERED PROFESSIONAL ENGINEER
PETER CHANG
No. M-029732
EXP. 6/30/2014
MECHANICAL
STATE OF CALIFORNIA

PROJECT ENGINEER DATE

DRAFTER O.P.
DESIGNER O. PONGPUN
CHECKER P. CHANG
CADD PROJECT FILE NAME
REVIEWED BY DATE

M-1

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN MULTI-USE ENHANCEMENT PROJECT

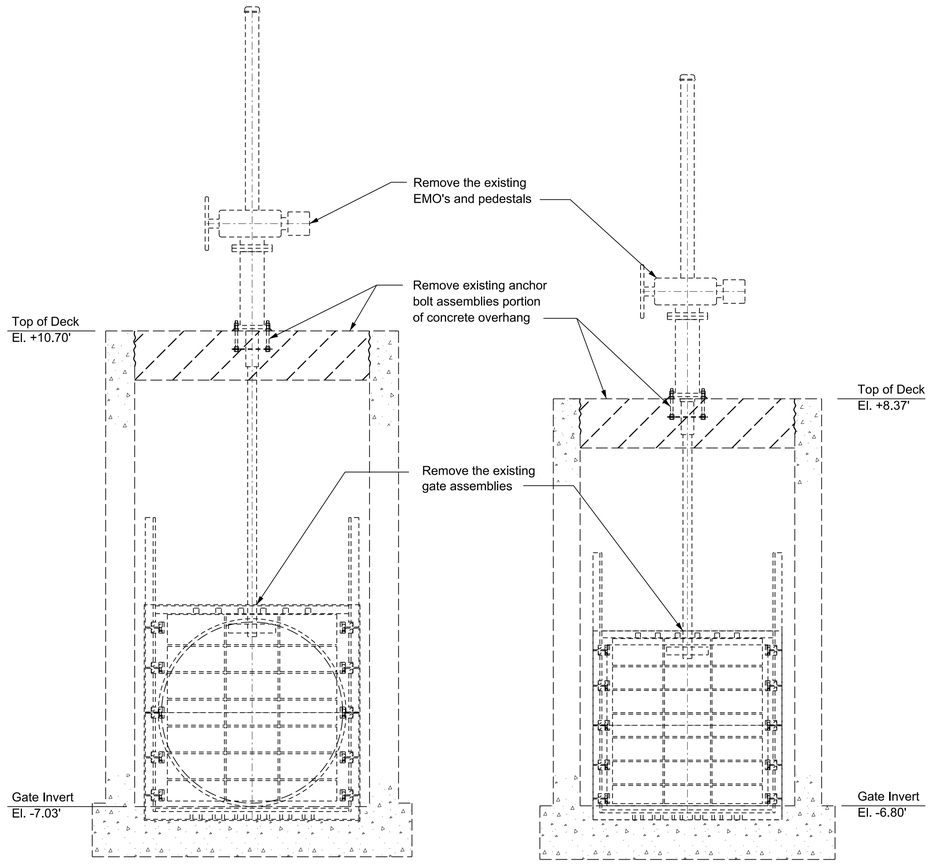
MECHANICAL SITE PLAN AND
TIDE GATE OPERATION SEQUENCE

FCC0001176	JOB JX0039	DWG 507-D4.ME -1	SHEET 1 OF 5

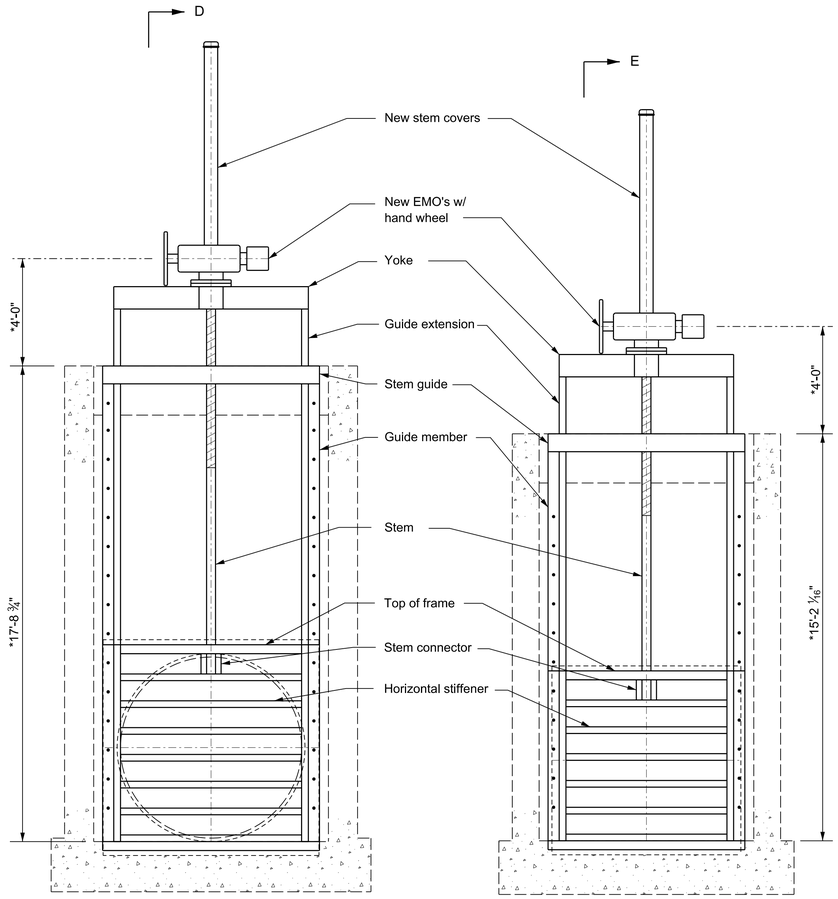
P5-DF 5/99

DATE. $DATE$ TIME. $TIME$ FILE. $FILE$

Oxford Retention Basin Tide Gate ME.dgn 12/26/2012 9:42:59 AM



EXISTING EQUIPMENT REMOVAL
SCALE: 1/8" = 1'-0"



SECTION A-A, (M-1)
NEW GATES INSTALLATION
SCALE: 1/8" = 1'-0"

GATES AND EMO'S SCHEDULE

SIZE	GATE TYPE	Qty.	Inv. El. (Ft.)	Max Seating Head (Ft.)	Max Unseating Head (Ft.)	Motor Power Output (HP)	Output Torque (Ft-lb)	Thrust Rating (Lb.)
81"x81"	Fabricated Stainless Steel	1	-7.03	6.9'	4.5'			
72"x72"	Fabricated Stainless Steel	1	-6.80	6.9'	4.5'			

NOTES:

1. Elevations shown hereon are based on Mean Sea Level (MSL). To convert to Mean Low Low Water Elevation (MLLW): 0' (MSL) = +2.7' (MLLW)
2. The Contractor shall verify the existing dimensions that marked with " * ".

DRAFTER O.P.
DESIGNER O. PONGPUN
CHECKER P. CHANG
CADD PROJECT FILE NAME
REVIEWED BY
DATE

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER
PETER CHANG
NO. M-029732
EXP. 6/30/2014
MECHANICAL
STATE OF CALIFORNIA

PROJECT ENGINEER DATE

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN MULTI-USE ENHANCEMENT PROJECT

MECHANICAL EQUIPMENT LAYOUT

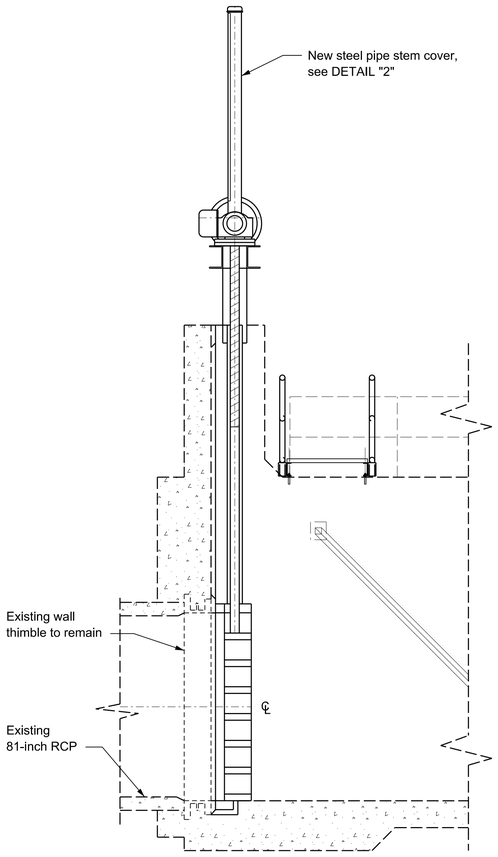
M-2

FCC0001176 | JOB JX0039 | DWG 507-D4.ME - 2 | SHEET 2 OF 5

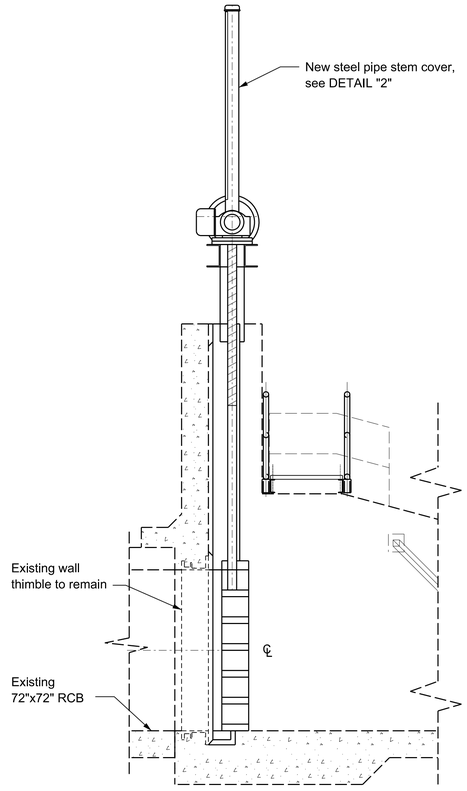
PS-DF 5/99

DATE. $DATE$ TIME. $TIME$ FILE. $FILE$

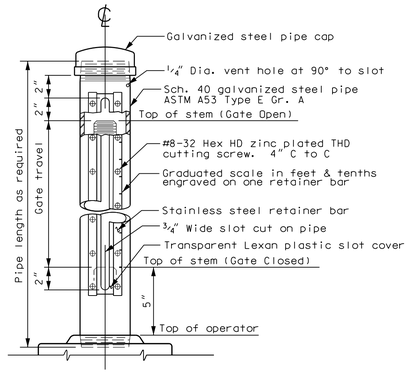
Oxford Retention Basin Tide Gate ME.dgn 12/26/2012 9:43:27 AM



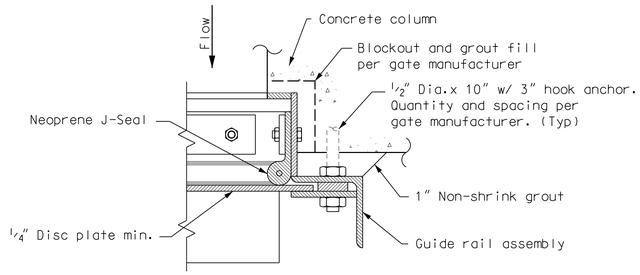
SECTION B-B, (M-1)
81"X81" GATE SECTION DETAILS
SCALE: 3/8" = 1'-0"



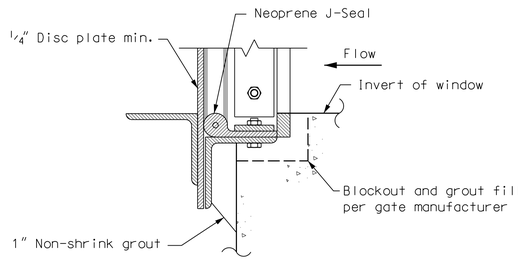
SECTION C-C, (M-1)
72"X72" GATE SECTION DETAILS
SCALE: 3/8" = 1'-0"



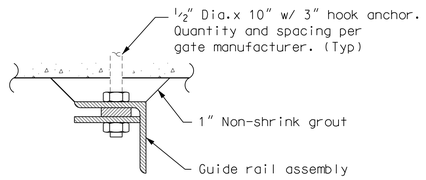
DETAIL "2"
STEEL PIPE STEM COVER
NOT TO SCALE



SECTION D-D
GUIDE RAIL DETAIL
NOT TO SCALE



SECTION E-E
BOTTOM RAIL DETAIL
NOT TO SCALE



SECTION F-F
GUIDE RAIL BELOW WINDOW DETAIL
NOT TO SCALE

M-3

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER
PETER CHANG
NO. M-029732
EXP. 6/30/2014
MECHANICAL
STATE OF CALIFORNIA

PROJECT ENGINEER DATE

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN
MULTI-USE ENHANCEMENT PROJECT

SECTIONS AND INSTALLATION DETAILS

FCC0001176	JOB JX0039	DWG 507-D4.ME - 3	SHEET 3 OF 5

PS-DF 5/99

DRAFTER O.P.
DESIGNER O. PONGPUN
CHECKER P. CHANG
CADD PROJECT FILE NAME
REVIEWED BY
DATE

DATE. $DATE$ TIME. $TIME$ FILE. $FILE$

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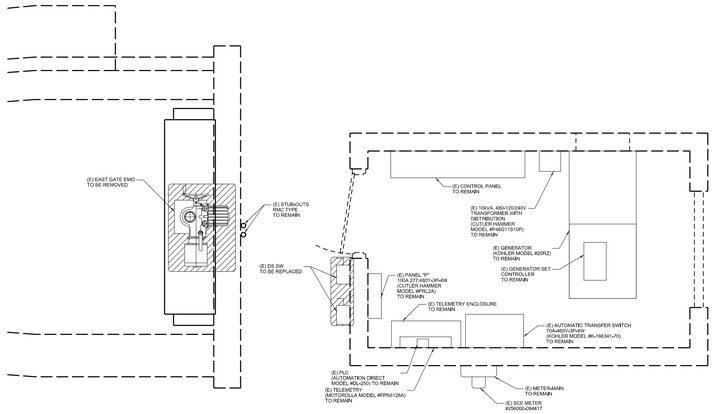
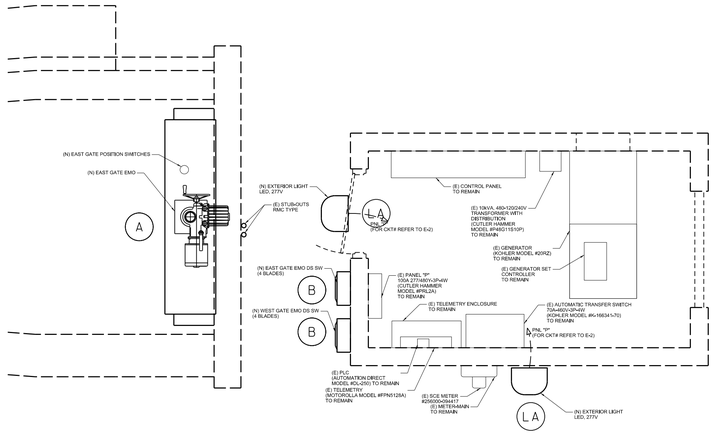
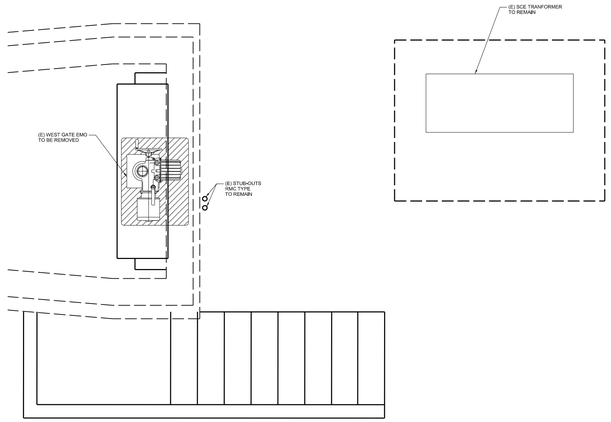


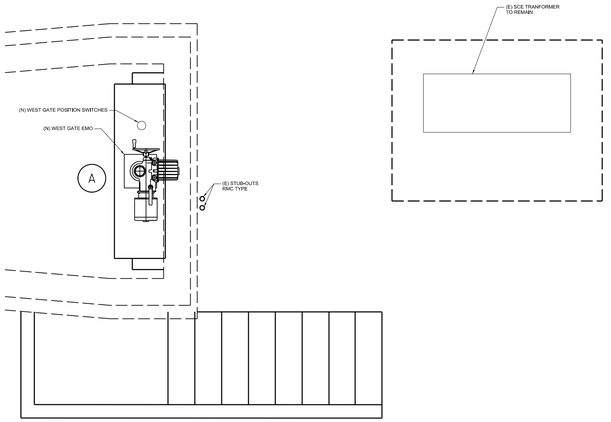


ABBREVIATIONS

AC	ALTERNATING CURRENT
AMP	AMPERES
AIC	AVAILABLE INTERRUPTING CURRENT
AWG	AMERICAN WIRE GAUGE
ATC	AUTOMATIC TRANSFER SWITCH
C/B, CB	CIRCUIT BREAKER
CCW	COUNTERCLOCKWISE
CKT	CIRCUIT
CO	CONDUIT ONLY
CW	CLOCKWISE
ELECT	ELECTRIC
FLA	FULL LOAD AMPERES
GC	GALVANIZED RIGID METAL CONDUIT
GND	GROUND
HDG	HOT DIP GALVANIZED
HP	HORSEPOWER
KVA	KILOVOLT-AMPERES
KW	KILOWATTS
L	LENGTH
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
N.T.S.	NOT TO SCALE
OL	OVERLOAD RELAY (THERMAL)
P	POLE
PVC	POLYVINYL CHLORIDE
RMC	RIGID METAL CONDUIT
V	VOLTS
VD	VOLTAGE DROP



DEMOLITION PLAN



SITE PLAN

EQUIPMENT SCHEDULE

(A)	2	30A DISCONNECT SWITCH, NON-FUSIBLE, HEAVY DUTY, 600VAC, NEMA 4X, 4 BLADES SQUARE-D CATALOG #HU461DS OR APPROVED EQUAL.
(B)	2	EMO 1.5HP, 460V, 3P, 15MIN DUTY, NEMA 3R, UL Listed. PROVIDE WITH POSITION INDICATOR POTENTIOMETER, (2) POSITION LIMIT SWITCHES, (2) TORQUE SWITCHES, (2) 4-20mA ANALOG INPUTS, SPACE HEATER, OPERATOR PANEL SHALL HAVE 2-POS SS (OPEN-CLOSE); 3-POS SS (MANUAL-STOP-REMOTE). LED GREEN PILOT LIGHT FOR "OPEN", LED RED PILOT LIGHT FOR "CLOSE", PADLOCKABLE HASP TO PREVENT UNAUTHORIZED OPERATION. LIMITORUE L120 SERIES OR APPROVED EQUAL.
(LA)	2	PERIMETER LIGHTS, FULL CUT-OFF, IDA COMPLIANT, 277V, LED 5000K, TYPE III, 350mA, BLACK, PROVIDE WITH PHOTOCONTROL, POLYCARBONATE SHIELD. HUBBELL CATALOG LAREDO LMC-30LU LED

ELECTRICAL DRAWINGS LIST

E-1 Demolition and Site Plan.
E-2 Single Line and Wiring Diagram.

OTHER ABBREVIATIONS.

S.C.E. SOUTHERN CALIFORNIA EDISON.
LA CO LOS ANGELES COUNTY.
DPW DEPARTMENT OF PUBLIC WORKS.

LEGEND

EQUIPMENT TO BE REMOVED.
(xA) EXISTING ANALOG RACEWAY
(Axx) NEW ANALOG RACEWAY (e.g. A6)
(xC) EXISTING CONTROL RACEWAY.
(Cxx) NEW CONTROL RACEWAY (e.g. C51)

CONDUIT & WIRING INSTALLATION LEGEND

NEW RACEWAY
EXISTING RACEWAY

DRAFTER O.P.
DESIGNER O. PONGPUN
CHECKER P. CHANG
CADD PROJECT FILE NAME
REVIEWED BY M. JAN
DATE

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER
PETER CHANG
NO M-029732
EXP 6/30/2014
MECHANICAL
STATE OF CALIFORNIA

PROJECT ENGINEER DATE

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN MULTI-USE ENHANCEMENT PROJECT

ELECTRICAL DEMOLITION AND SITE PLANS

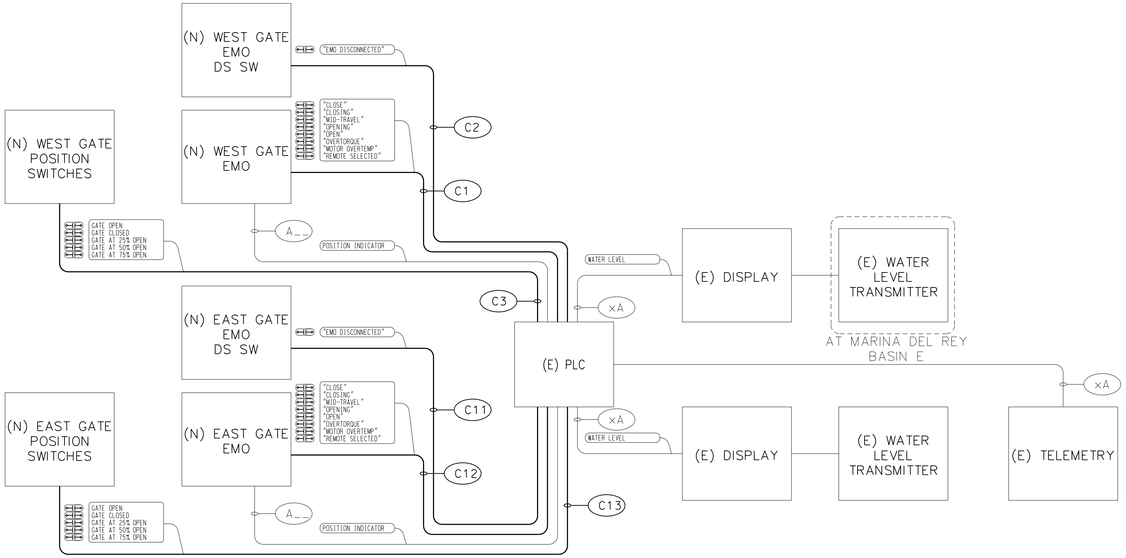
ME - 4

FCC0001176 | JOB JX0039 | DWG 507-D4.ME 4 | SHEET 4 OF 5

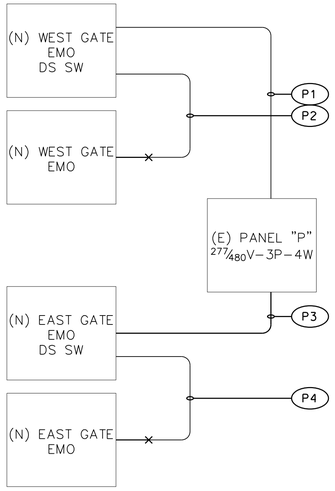
PS-DF 5/99

DATE. $DATE$ TIME. $TIME$ FILE. $FILE$

Oxford Retention Basin Tide Gate ME.dgn 12/20/2012 8:40:29 AM



CONTROL AND MONITORING DIAGRAM±

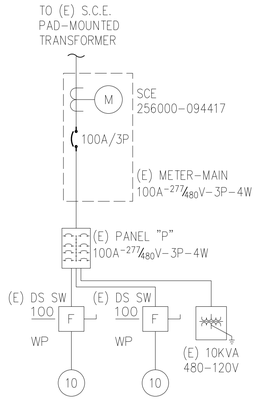


POWER CONNECTION DIAGRAM

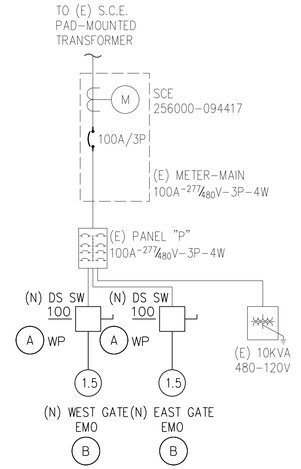
RACEWAY SCHEDULE

	DESCRIPTION	CONDUCTOR	FROM	TO
P1	REUSE EXISTING RACEWAY	3-#12AWG, 1#12 AWG (GND)	(E) PANEL "P" CKT 7,9,11	(N) WEST GATE EMO DS SW
P2	REUSE EXISTING RACEWAY	3-#12AWG, 1#12 AWG (GND)	(N) WEST GATE EMO DS SW	(N) WEST GATE EMO
P3	REUSE EXISTING RACEWAY	3-#12AWG, 1#12 AWG (GND)	(E) PANEL "P" CKT 8,10,12	(N) EAST GATE EMO DS SW
P4	REUSE EXISTING RACEWAY	3-#12AWG, 1#12 AWG (GND)	(N) EAST GATE EMO DS SW	(N) EAST GATE EMO

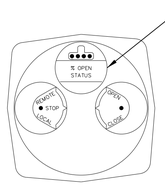
	DESCRIPTION	CONDUCTOR	FROM	TO
C1	3/4"RMC	16#14AWG, 1#14(GND)	(N) WEST GATE EMO	(E) PLC
C2	3/4"RMC	2#14AWG, 1#14(GND)	(N) WEST GATE EMO DS SW	(E) PLC
C3	3/4"RMC	10#14AWG, 1#14(GND)	(N) WEST GATE SWITCHES	(E) PLC
C4-C10		NOT USED		
C11	3/4"RMC	2#14AWG, 1#14(GND)	(N) EAST GATE EMO DS SW	(E) PLC
C12	3/4"RMC	16#14AWG, 1#14(GND)	(N) EAST GATE EMO	(E) PLC
C13	3/4"RMC	10#14AWG, 1#14(GND)	(N) EAST GATE SWITCHES	(E) PLC



(E) SINGLE LINE DIAGRAM

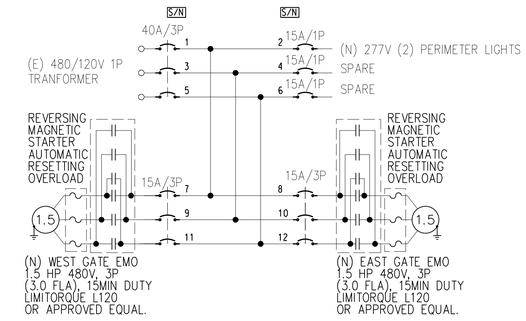


(N) SINGLE LINE DIAGRAM



RED LED PILOT LIGHT FOR "CLOSE" STATUS
GREEN LED PILOT LIGHT FOR "OPEN" STATUS

(N) EMO OPERATOR PANEL (TYP.)



(E) PANEL "P" WIRING DIAGRAM

LEGEND

- EQUIPMENT TO BE REMOVED.
- xA — EXISTING ANALOG RACEWAY
- Axx — NEW ANALOG RACEWAY (e.g. A6)
- xC — EXISTING CONTROL RACEWAY.
- Cxx — NEW CONTROL RACEWAY (e.g. C51)

CONDUIT & WIRING INSTALLATION LEGEND

- NEW RACEWAY
- EXISTING RACEWAY

ONE LINE SYMBOLS

- M — SERVICE METER
- 100 F WP — FUSIBLE DS SW NEMA 3R
- CIRCUIT BREAKER – VOLTS, AMPERAGE AND AIC AS SHOWN.
- GROUNDED TRANSFORMER – SIZE AS INDICATED
- EXISTING PANEL

DRAFTER O.P. | DESIGNER O. PONGPUN | CHECKER P. CHANG | CADD PROJECT FILE NAME | REVIEWED BY M. TJAN DATE

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — PETER CHANG — NO. M-029732 — EXP. 6/30/2014 — MECHANICAL — STATE OF CALIFORNIA

PROJECT ENGINEER DATE

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

OXFORD RETENTION BASIN MULTI-USE ENHANCEMENT PROJECT

ELECTRICAL SINGLE LINE AND WIRING DIAGRAMS

FCC0001176 | JOB JX0039 | DWG 507-D4.5 | SHEET 5 OF 5

ME - 5

PS-DF 5/99

DATE. $DATE$ TIME. $TIME$ FILE. $FILE$

Oxford Retention Basin Tide Gate ME.dgn 12/20/2012 8:27:06 AM